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The International Family Planning Movement

By Peter J. Donaldson
and Amy Ong Tsui

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Abstract—Over the past three decades, the number of women using family planning has increased sixfold to over 400 million married women of childbearing age. The evolution of behavior and attitudes toward using birth control among third world couples reflects the goals and hard work of an international network of individuals, governments, and organizations. This *Bulletin* follows the progression of this movement, from early opposition in developed, as well as developing countries, to the present day, when birth control is practiced by a slight majority of the world's women of childbearing age. Among world regions, contraceptive use ranges from about 17 percent in Africa to 75 percent in Asia. In some African countries, however, family planning is still a foreign concept, and fewer than 5 percent of women use any birth control.

International organizations played a crucial role in the spread of family planning by providing training for developing country professionals, funding actual family planning programs, and helping to evaluate programs. But the success of a country's family planning program also was dependent upon a national commitment, and often on a strong socioeconomic setting. The private sector has had a limited role except in some countries, notably in Latin America, but its involvement is likely to expand in the future. Also, as financial support from the United States and international organizations wanes, national governments will cover a larger share of the cost.

The worldwide increase in the practice of family planning has led to fertility declines in many third world countries, slowing rapid population growth rates. For individuals, family planning has been a liberating influence, allowing them to participate more fully in the shift from traditional to modern society.

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IPPF

An Indian social worker visits a home to explain the intrauterine device (IUD). The Indian government was the first to support family planning to lower fertility.

The International Family Planning Movement

By Peter J. Donaldson and Amy Ong Tsui

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Dramatic changes have taken place in human society over the past 30 years. In Europe, the United States, and other industrialized countries, virtually all women have access to effective birth control methods to regulate the number and timing of children they have. Fertility levels have fallen to all-time lows in many of these countries. Even more remarkable, this revolution in childbearing has reached many poor agricultural societies in the Third World, where the concept of family planning was unknown a few decades ago. In some developing countries the use of modern contraceptives has grown from nearly zero to more than 25 percent of the women of childbearing age. The average number of children third world women have—once six or more in many countries—has fallen.

In the 1960s, European and American women quickly adopted new methods of birth control as they became available. But what fueled this reproductive revolution in the Third World, where contraceptive use represented a radical shift from traditional ways? Among the most important influences were social changes—increased education and employment for women—that enhanced the status of women and conferred a legitimacy to smaller family sizes. For many countries, economic development also brought better health systems and improved transportation and communication networks, facilitating the flow of new ideas as well as the delivery of new contraceptive products and services. The introduction of the birth control pill and the intrauterine device (IUD) in the early 1960s, and later, new methods of female sterilization and improved early abortion procedures also helped make fertility control simpler, safer, less expensive, and more accessible.

The active promotion of family planning by numerous individuals, organizations, and government agencies was another vital force behind the acceptance of contraceptive use in developing countries over the past several decades. During the 1950s and early 1960s, many population specialists and economic planners argued that rapid increases in population had negative economic consequences for poor countries. Others saw the dearth of birth control options in developing countries as endangering the health and restricting the personal freedom of women. In the mid-1960s, developing countries began to adopt policies to support family planning as a means of slowing population growth.[1] By the late 1960s, family planning had become a worldwide social movement that involved international organizations such as the United Nations Fund for Population Activities, government agencies such as the United States Agency for International Development, private American philanthropic groups such as the Ford and Rockefeller foundations, nonprofit organizations such as the affiliates of the International Planned Parenthood Federation, and a host of individuals, many with backgrounds in medicine and public health.

This issue of the *Population Bulletin* tells the story of the international family planning movement. It traces the history of the movement from the early 1900s when birth control often was considered immoral, or at best, deleterious in Western societies, to the present, when fertility control is widely practiced in countries at all levels of development. It examines the factors that encouraged the United States and other governments to support family planning programs as a way to slow population growth, and describes the process by which the international family planning movement was transformed from the concern of a relatively small number of advocates to a well-institutionalized program involving most of the world's national governments, numerous international and nonprofit organizations and, most significantly, several hundred million women and men around the world.

World Bank/William Graham

Birth control has gained acceptance in traditional societies, as among these Tunisian women.

The Evolution of Family Planning Policies and Practices

The increases in contraceptive use during the past 30 years are even more dramatic when we consider that artificial birth control was illegal in most countries 100 years ago. The global diffusion of effective family planning practices has drawn upon the resources and energies of numerous organizations and individuals who evoked both science and sentiment to garner public support. The promotion of birth control has benefited from expertise in a wide variety of areas and has included such diverse activities as testing improved contraceptive technologies, coordinating conferences with high-level policymakers, and scripting radio dramas to promote family planning among third world couples.

How do we know family planning practices have changed? Data from national surveys of women of childbearing age, as well as statistics from family planning clinics, have measured a genuine increase in the level of contraceptive use in the developing world. In the early 1960s, when modern contraceptive technology was slowly becoming available, only about 60 million women, 18 percent of the women of childbearing ages in the developing world, were practicing family planning. The total fertility rate (TFR), or the average total number of

Table 1. First Governments to Support Family Planning and Slower Population Growth

Country	Year policy adopted	Annual growth rate 1960–1965	Annual growth rate 1985–1990
India	1951	2.26	2.07
Pakistan	1960	2.69	3.44
Republic of Korea	1961	2.64	0.95
China	1962	2.07	1.45
Fiji	1962	3.27	1.78
Egypt	1965	2.51	2.39
Mauritius	1965	2.64	1.17
Singapore	1965	2.81	1.25
Sri Lanka	1965	2.43	1.33
Turkey	1965	2.49	2.08

Source: Nortman, Dorothy, *Population and Family Planning Programs: A Compendium of Data through 1981* (11th edition) (New York: The Population Council, 1982) Table 6; United Nations, "1990 Revision of World Population Prospects: Computerized Data Base and Summary Tables," United Nations, New York, May 1990.

children a woman would bear given current birth rates, was just over 6 children per woman, compared to 2.7 children per woman in the industrialized countries. Nearly three decades later, the TFR for developing countries as a whole has fallen to 3.9 children per woman. In industrialized countries, it has declined to about 1.9 children per woman.[2] In 1990, about one-half of all couples of childbearing age in the developing world use some means of birth control. In the developed countries, roughly 70 percent use birth control.

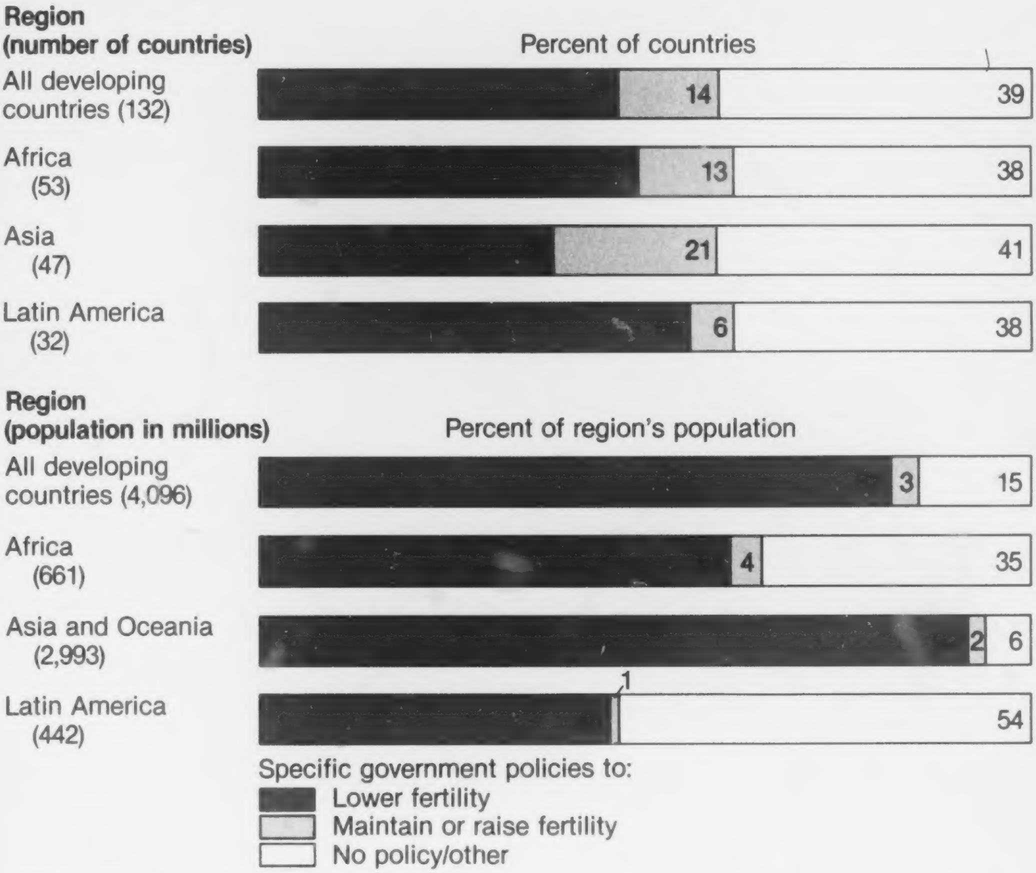
Two factors were especially important for the growth of the international family planning movement in the late 1950s and the early 1960s. First, there was a growing sense of individuality and a corresponding decline in the perceived need to follow traditional ways. Second, more and more people began to feel that numbers counted and that rapid population growth represented a threat to the existing economic, social, and physical order.

These social factors were important throughout the developing world, although their effects differed by region and country. The rise of individuality and the movement away from traditional patterns of family formation were slower in some societies than in others. Moreover, the importance of population size and growth rate typically were defined in terms of their impact on economic development rather than their social consequences. Lower personal incomes and reduced national savings, which could retard economic expansion, were of greater concern than the threat to social order brought by higher birth rates within certain ethnic, racial, or religious minorities.

In 1951, India became the first country to adopt an official policy to slow population growth by promoting family planning. In time, other countries followed India's lead. Pakistan, the Republic of Korea, the People's Republic of China, and Fiji announced population growth reduction policies between 1960 and 1962 (see Table 1). Egypt, Mauritius, Singapore, Sri Lanka, and Turkey adopted similar positions in 1965. The first countries to adopt population policies and to promote family planning were mainly Asian, but they included both large and small countries, and both rapidly and slowly growing populations. In tiny Fiji, the annual rate of growth was 3.3 percent between 1960 and 1965, while in China, the world's demographic giant, the population growth rate was 2.1 during that period.

Many more developing countries have

Figure 1. Government Policies on Fertility Levels in Developing Regions, 1989



Source: UN, Population Policy Data Files, 1990.

adopted policies to reduce population growth since the mid-1960s. As of 1989, 82 percent of the Third World's population lived in countries that had official policies to slow population growth through lowering fertility (see Figure 1). At least 50 developing countries (39 percent of the total) do not have specific policies to lower fertility and another 18 (14 percent) have policies to maintain or raise fertility. But many of these are small countries like Bahrain or Guinea-Bissau, or have a history of low fertility, like Argentina. These countries represented about 18 percent of the Third World's population in 1989.

In addition to formal government policies, the efforts of many individuals and international and national organizations were crucial to the movement's development. The evolution in the views of scientists, policymakers, and birth control advocates regarding the effects of high fertility and rapid population growth is a large part of the story of the international family planning movement and the dramatic changes in childbearing in the Third World.

Precursors and Pioneers

The history of the international family planning movement can be divided into four periods. During each period, the rationale for birth control and the public policies surrounding the provision of contraceptives changed in important ways. For each period, Table 2 lists the landmark events that highlight the fundamental changes that occurred in the public's orientation toward human fertility and fertility control.

The Earliest Advocates

The first period of international family planning movement history extends roughly from the late 19th century to the end of World War I. Birth control advocates spread the doctrine of voluntary motherhood, the recognition of female sexuality, and the right of couples—wives, in particular—to control fertility through the use of contraceptive devices. But this concern for women's health, sexual liberation, and family welfare was mixed with anxiety about the dangers of a rapidly growing population of poor people. During this period, the family planning movement in Europe was labelled neo-Malthusian because many people, evoking the 17th century writings of Thomas Malthus, believed that population growth, especially among the lower classes, was a threat to social welfare. Also during this time, a renewed interest in eugenics—the improvement of human genetic stock by controlling physical and mental traits—directed more attention to the neo-Malthusian movement.

The leaders of the family planning movement during this period were essentially reform-minded. The movement's pioneers, people such as Margaret Sanger and Charles Knowlton in the United States, Marie Stopes in England, and Paul Robin in France, promoted freer access to family planning information and services, including abortion in some cases, for rich and poor alike.

There was considerable opposition both in Europe and the United States to the work of these early family planning advocates who were accused of destroying family life and promoting promiscuity. Opponents of the family planning movement fought to limit access to birth control devices and sought passage of the U.S. Comstock Law, enacted in 1873, prohibiting advertisements or prescriptions of contraceptives. Although the federal statute was repealed in 1916, in part because of Margaret Sanger's efforts, laws modelled on the Comstock Law stayed on the books in many U.S. states until the 1960s.

In the same year the Comstock Law was repealed, Margaret Sanger opened America's first birth control clinic in Brooklyn, New York. Five years later, in 1921, Marie Stopes opened England's first birth control clinic. Both clinics aimed at serving poor women, operating under their sponsors' belief that the poor deserved access to a vital health service already available to the more fortunate.[3] The work of Sanger, Stopes, and their allies helped advance the acceptability of family planning on both continents. These first family planning advocates were action-oriented, seeking, usually in the face of legal opposition, to disseminate information and services to married women to combat involuntary pregnancy.

The sixth of 11 children, Margaret Sanger was a trained nurse who advocated birth control access for over 50 years. She published numerous articles and pamphlets promoting birth control, such as "What Every Mother Should Know" and "Woman Rebel." Marie Stopes was a well-known botanist, the first woman to become a science lecturer at Manchester University, and a member of Britain's prestigious Royal Society of Literature. The involvement of other biological and medical scientists in birth control in the 1920s helped transform the family planning movement from a radical cause based on new and then-unpopular notions of social jus-

Table 2. Landmark Events in International Family Planning

Early Advocates	
1860	Malthusian League founded in England to spread information on birth control.
1873	Comstock law in the United States enacted to prohibit advertising or prescription of contraception (later repealed in 1916).
1916	First free birth control clinic opened in Brooklyn, New York, by Margaret Sanger.
1921	First birth control clinic opened in England by Marie Stopes.
1937	American Medical Association gives qualified endorsement to birth control.
Post-World War II Developments	
1946	United Nations Economic and Social Council establishes a population commission representing member governments and a population division within the secretariat.
1951	India adopts family planning as part of its economic program.
1952	John D. Rockefeller, 3rd establishes the Population Council.
	Constitution for the International Planned Parenthood Federation (IPPF) drafted at an international conference in Cheltenham, England (ratified in 1953).
Rapid Program Expansion	
1960	Oral contraceptives are introduced.
1961	Plastic IUDs become available.
1967	The trust fund for the United Nations Fund for Population Activities (UNFPA) is created.
1968	United Nations International Conference on Human Rights issues the Teheran proclamation, of which article 16 states: "Parents have a basic human right to determine freely and responsibly the number and spacing of their children."
	Pope Paul VI issues *Humanae vitae* banning the use of artificial contraception.
	Paul Ehrlich publishes *The Population Bomb*.
	U.S. Congress first allots foreign aid funds for family planning.
1969	First non-eugenic, non-restrictive sterilization laws are passed in Singapore and the state of Virginia, U.S.A.
1973	U.S. Supreme Court upholds *Roe vs Wade* decision, limiting the right of states to interfere in the private decision of a woman and her doctor to terminate a pregnancy.
1974	United Nations holds first world conference on population in Bucharest. The United States urges countries to adopt policies aimed at slowing growth, primarily through family planning.
1979	The People's Republic of China begins campaign for "one child for one couple."
Political Realignments and New Technologies	
1984	The Second UN World Conference on Population is held in Mexico City. Most third world countries favor slower population growth and family planning. The United States shifts its position, stating that population growth is a neutral phenomenon.
1985	A law is enacted that prohibits the U.S. government from supporting any organization that supports or participates in the management of a program of coercive abortion or involuntary sterilization. Support for the UNFPA and IPPF is suspended.
1988	RU-486 is approved for terminating early pregnancy in France.

tice and women's rights to a broader-based movement that appealed to the middle class.

The surge of research on the biological factors of reproduction during this period laid the foundations for subsequent technological breakthroughs such as the birth control pill. Through their research some scientists were led into activism, focusing on the impact of birth control on differential population growth, eugenics, and the racial and economic composition of the population rather than its importance for conjugal welfare. Qualified endorsement of birth control by the influential American Medical Association in the mid-1930s symbolized the growing acceptance of family planning among the medical profession. At the same time there was growing public support for family planning.

The Interwar Years

The first phase of the international family planning movement ended about the time of World War I, while the second phase dates from the end of World War II through the 1950s. The two world wars disrupted the expansion of international family planning activities and forced the public and policymakers to concentrate on other issues.

During the interwar years, however, a significant amount of birth control activity continued in the United States. Birth rates among the middle class were declining, aided only by basic contraceptive methods—such as the diaphragm and jellies.

The lower rates among more educated and more affluent Americans concerned some economists, politicians, and social scientists. Both population quality and industrial growth were thought to be threatened by these depopulation trends. Fear that the less desirable segments of the population were reproducing faster than the more desirable, and a belief that more consumers were needed to stimulate a stagnant economy placed birth control advocates on the defensive. Social welfare reforms were planned specifically to encourage couples to have large families again. The outbreak of World War II interrupted these initiatives, and the post-war baby booms in the United States, Europe, and other countries removed the need.

Post-World War II Developments

The end of World War II is associated with two important changes in public attitudes toward population growth and family planning. First, confronted with the grisly consequences of Nazi Germany's attempts to promote racial purity, public support for the eugenics movement evaporated. Except among a few extremists, it was no longer popular to advance family planning and population control as means to establish a balance among different racial or economic groups. Economic reconstruction or development, and political stability became more frequently cited rationales for government involvement in birth control. Climbing postwar birth rates in much of the world gave credence to these issues and conferred more importance to the relationship between population growth and economic progress.

The second important change after World War II was an increase in the number and stature of private groups working to promote family planning services. Private family planning associations gained momentum in many countries in the postwar years and became important focal points for family planning activities. A conference in Stockholm in 1946 provided the initial forum for planning an international association of private family planning groups. At subsequent international conferences in England in 1948, and in Bombay in 1952, the constitution of what is now the International Planned Parenthood Federation (IPPF) was drafted and ratified. The original members came from India, the United Kingdom, the United States, the Netherlands, Sweden, West Germany, Singapore, and Hong Kong.

The IPPF is the most prominent and widely recognized private sector effort to support family planning internationally. Its objectives were (and are) to promote family planning and population education, to support family planning services, and to stimulate and disseminate research on fertility regulation. In 1990, IPPF had 107 family planning member affiliates representing 150 countries. Funding for IPPF's $70 million annual budget comes from governments, private foundations, and individual donors. Funding of local IPPF affiliates may involve grants from IPPF itself or other international groups as well as funds raised locally from government sources, service fees, and donations.

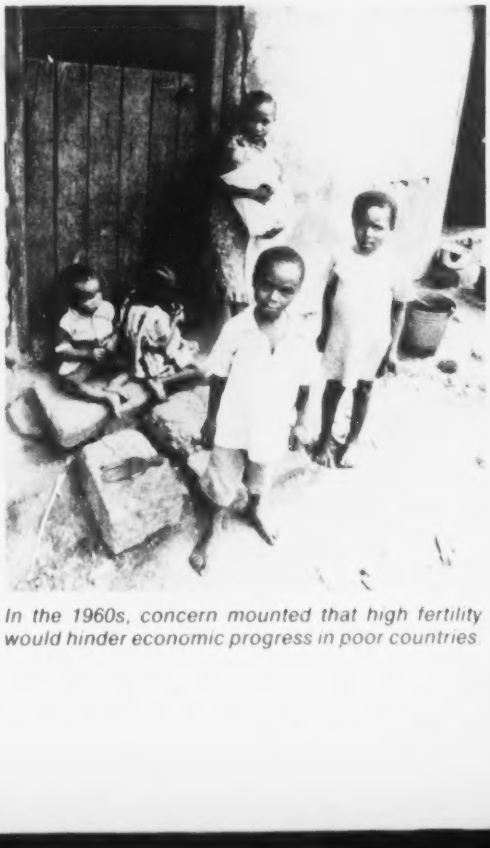
After World War II, the newly established United Nations helped direct attention to population issues and strengthen links between international groups working in the field. In 1946, the UN Economic and Social Council established the Population Commission, composed of representatives from member governments. The commission has met 25 times since to review demographic and family planning studies that it sponsored and to report to the general UN membership on population problems. At the same time, a Population Division was established within the UN Secretariat to provide member states with information on population change and a better understanding of its determinants and consequences.

The 1960s: A Surge of Activity

The third period in the evolution of the international family planning movement began around 1960 and lasted until the mid-1980s. This period was characterized by a significant increase in support for family planning among both industrialized and third world countries.

The most influential manifestation of support by developed countries was the incorporation of family planning as a central component of the development assistance activities of the U.S. Agency for International Development (A.I.D.). A.I.D.'s population program exemplifies the view that large-scale, government-sponsored programs were the best way to increase contraceptive use and slow population growth. Many A.I.D. staff, along with experts outside government, actively promoted large-scale national family planning programs funded by international aid. Convinced that rapid population growth was an urgent problem in developing countries, they believed that contraceptive use should be widely promoted through a variety of channels, using health personnel with different backgrounds and levels of expertise.

In 1968, the U.S. Congress first earmarked foreign assistance appropriations to support family planning activities. Over the following two decades, A.I.D. contributed a total of $3.9 billion to population and family planning assistance throughout the Third World, making it the largest single donor of population aid.[4]



World Bank/Kay Chernush

In the 1960s, concern mounted that high fertility would hinder economic progress in poor countries.

Another key event of this period was the establishment of the United Nations Fund for Population Activities (UNFPA) in 1967, later renamed the United Nations Population Fund. The goals of the UNFPA are to promote an awareness of population problems and their relationship to social and economic development, the implementation of population policies, and the spread of family planning to better the health and well-being of the individual, family, and community. The UNFPA was established as a trust fund and financed by voluntary contributions from UN members. Over the first 15 years of its existence, the UNFPA allocated over $1 billion to member states in support of population and family planning programs.

Another landmark event of this period was the issuance of the Teheran proclamation following the 1968 United Nations Conference on Human Rights, held in Iran. Article 16 of this proclamation identified the ability to control one's fertility and therefore access to the means of fertility control as a basic human right.

The publication of Paul Ehrlich's *The Population Bomb* in 1968 was another influential event. Ehrlich's appearances on popular television talk shows and a surge of media attention galvanized public awareness of the consequences of rapid population growth.

In the United States, a number of organizations were founded to publicize the perceived dangers of rapid population growth. Among these groups were Zero Population Growth, the Population Crisis Committee, and the Population Institute. The Population Reference Bureau, which had been founded in 1929 as part of the first burst of concern over population growth, expanded its dissemination efforts to respond to the growing public demand for information on population trends.

Population studies gained greater stature in academia as well. Population programs were started or expanded at the Universities of Chicago, Michigan, North Carolina, and Pennsylvania, and at Brown, Johns Hopkins, and Princeton Universities. Because fertility levels are generally the major determinant of population growth rates, many programs concentrated their research and curricula on fertility. Much of the applied research and training, for foreign as well as American students, was related to family planning.[5]

In 1974, the United Nations sponsored the World Population Conference. This conference, held in Bucharest, marked the transformation of the concern about high birth rates in the Third World from an interest primarily of the United States and a few Asian countries to a legitimate political issue in a much wider circle of countries. The conference, attended by delegations from UN member countries, succeeded in drafting the first World Population Plan of Action. This achievement occurred despite the fact that population and family planning were politically sensitive issues in many of these countries.

The U.S. delegation to the 1974 conference suggested that developing countries establish targets for lowering population growth rates, and work to achieve them. In response, a large block of third world nations argued for the establishment of a new international economic order that would enable developing countries to gain a competitive position in the world market. They believed that this new order would not only advance economic development but also slow population growth. These nations saw a greater long-term benefit in attacking the underlying barriers to economic development than in the expansion of family planning programs by foreign donors. "Development is the best contraceptive" became the often-repeated motto for many representatives from the developing countries. The 1974 World Population Conference marks the first significant conflict between the United States and third world countries regarding population growth and family planning.

The 1980s to the Present

The 1980s marked the beginning of the fourth, and current, phase in the history of the international family planning movement. This period has been characterized by the increasing commitment of the public and policymakers in the Third World to family planning, both to slow population growth and to improve the health of women and children. The period has also witnessed the waning of U.S. government concern about the effects of rapid population growth and of its support for family planning.

In the United States, a new political conservatism brought the election of a president and many representatives opposed to government support of abortion and family planning. Politically appointed policymakers and managers within the U.S. government worked to carry out their wishes. Efforts to dismantle the A.I.D. programs that helped support developing country family planning programs were launched by influential conservative leaders of the New Right.

The confrontation between the old and the new policies was apparent at the second World Conference on Population held in Mexico City in 1984.[6] The official American position at the conference expressed two important revisions to the United States' previous support of international population policies. First, population growth was now said to have a neutral, not detrimental, effect on the economic development of poor countries. Second, the U.S. government announced that it would cease to support nongovernmental organizations that performed or promoted abortion, even if they did so with their own resources. This expanded the ban on the use of U.S. foreign assistance funds for abortion in effect since 1974.

At the 1974 Bucharest Conference many developing countries were reluc-

Arthur Haupt

CONFERENCIA
INTERNACIONAL
DE POBLACION
MEXICO 1984
NEPAL
NICARAGUA

At the Mexico City conference, most countries supported expanding access to family planning.

Box 1. Abortion and Family Planning

The debate about abortion and its links to contraceptive practice has played a crucial role in the evolution of the international family planning movement. In many countries, Chile, Mexico, and Thailand, among them, the widespread use of illegal abortion has overwhelmed hospital maternity wards with women suffering the consequences of unsafe procedures. These conditions prompted many physicians to research and promote family planning to reduce the prevalence of unsafe abortion.[1] Even in conservative religious circles where contraceptive use would not ordinarily have been encouraged, priests, doctors, and politicians were willing to encourage the use of modern, so-called "artificial" contraceptives because they believed that family planning could prevent the more serious problem of illegal, unsafe abortion.

What is the relationship between abortion and contraceptive use? Some critics of family planning services have argued that promoting contraception creates a "contraceptive mentality" that encourages abortion. This argument has most recently been used by conservative Americans to urge A.I.D. to reduce its support for all family planning activities. In fact, the available data suggest that as a country first begins to shift from high to lower fertility, both contraceptive use and abortion may increase. Later, when contraceptive services spread and the use of family planning increases, reliance on abortion declines.

Abortion and contraceptive use, however, are not alternative choices. Abortion is often used by women who became pregnant while using some form of contraceptive. Every contraceptive method has some chance of failure even with careful use. And, couples sometimes use methods incorrectly or sporadically. In either case, an unplanned pregnancy can occur. Even in countries with widespread use of contraceptives, some women resort to abortion because of contraceptive failure.

Abortion is primarily a national, rather than international issue. Few international organizations support abortion activities. The U.S. Agency for International Development is prohibited by a statute of the U.S. Congress from supporting abortion activities overseas both in its direct bilateral projects and indirectly through the projects of its contracting agencies.

Reference

1. For example see Benjamin Viel, "The Health Consequences of Illegal Abortion in Latin America," in I. Zatuchni, J. J. Sciarra, and J. J. Speidel (eds.), *Pregnancy Termination: Procedures, Safety, and New Developments* (Hagerstown, Maryland: Harper and Row, 1979).

tant to concede that population and family planning might be important. But by the time of the Mexico City Conference, representatives of developing nations agreed that too rapid a population growth could have adverse consequences and that family planning programs were important for both health and economic development.

Ironically, by 1984 the United States delegation no longer supported this position. Following the Mexico City Conference, the United States withheld its contributions to the UNFPA and the IPPF, the two largest international family planning organizations. In 1985 the U.S. withheld $10 million of the $46 million that had been granted UNFPA by the U.S. Congress on the basis that $10 million was equivalent to the amount

UNFPA contributed to support projects in China where coercive abortions were said to be occurring. The following year the United States discontinued all support to UNFPA.

IPPF lost $11 million of promised U.S. support in 1984 and, like UNFPA, received no funding in subsequent years. The A.I.D. administrator said his agency had withdrawn support from IPPF because the abortion-related activities of IPPF member affiliates violated the new U.S. population policy.

Both UNFPA and IPPF issued statements clarifying the nature of their support to projects in member countries and the inapplicability of the restriction on funding because of abortion-related activities. As of 1990, however, the United States had not renewed its support for either organization. Because of new or supplemental contributions provided by other developed countries, including Japan, the Scandinavian countries, and Western European nations, the budgets for UNFPA actually increased following the loss of U.S. funding (see Table 3). The IPPF budget experienced a similar increase.

The events of the 1980s suggest that the 1990s will see continued erosion of U.S. government support for the international family planning movement. Congressional appropriations for A.I.D.'s population programs, without adjusting for inflation, have declined from $318 million in fiscal year 1985 to $253 million in fiscal year 1990. At the same time, global demand for contraceptives is rising.

National and International Influences

Third world family planning programs have been criticized as being largely a creation of population control and family planning enthusiasts in the Western industrial world. Many claim that these programs frequently have been forced onto uninterested developing countries. However, the leaders of some developing countries have been among the first to recognize the negative consequences of rapid population growth. Developing countries also are paying a large and growing share of the costs of family plan-

Table 3. Government Support for UNFPA, 1984 and 1989

Ten largest donor governments	1984 millions of US $	Ten largest donor governments	1989 millions of US $
United States	$38.0	Japan	$40.2
Japan	19.8	Netherlands	24.5
West Germany	12.5	West Germany	21.1
Norway	10.9	Norway	19.6
Netherlands	9.5	Sweden	17.6
Canada	8.8	Finland	14.9
Sweden	5.7	Denmark	11.6
Denmark	4.5	Canada	9.8
United Kingdom	3.9	United Kingdom	8.7
Italy	1.8	Switzerland	4.4
Other governments	7.0		7.1
Total contributions	122.4		179.5
Percentage from 10 largest donors	94		96

Source: UNFPA, 1984 and 1989 *Annual Reports* (New York: United Nations).

ning services. Substantial increases in contraceptive use in many developing countries indicate that the men and women of these countries were ready to accept family planning and to use modern contraceptives to regulate the size of their families.

It is impossible to measure the extent to which family planning programs in a given country were developed from within the country or were inspired by foreigners. Generalizations are risky because of the large number of developing countries that now promote family planning. Each country has its own history and unique economic, political, and cultural circumstances that shaped its response to the family planning movement. There is little direct evidence of what national elites in third world countries thought about population growth. Still, there is enough information with which to sketch the broad lines of influence.

The evolution of the international family planning movement has been shaped by a remarkable synergy between developed and developing country specialists and institutions. At times, developed and developing countries agreed about the definition of population-related problems and the appropriate responses to them. At other times, they have strongly disagreed. Some of the most important differences have centered around the fundamental right of a government to intervene in the reproductive decisions of its citizens.

Family planning activities in developing countries were initially promoted by nationals who had been influenced by the West, often through graduate or professional schooling. Western-trained physicians and public health practitioners were often the most visible advocates for family planning. Another important group was social scientists who had acquired an interest and some special knowledge of population-related topics. These specialists brought population- and family planning-related issues to the attention of policymakers and the public, often by translating or otherwise disseminating material from abroad.

Much of what might be called the first generation of support for family planning in the developing world emanated from this narrow base of Western-trained elites. Many of these individuals exuded an attitude of benign paternalism: they knew best that too many children and rapid population growth were detrimental for individuals and society. For them, the advocacy of family planning was a way to improve their own as well as others' circumstances.

Many of the early foreign-supported projects to promote family planning were implemented by such elites, some of whom received additional training to carry out the project. In many countries, the national affiliates of the IPPF were an important source of ideas; and they often provided the only public access to contraceptive services. International organizations such as the Population Council or the World Bank also gained influence during the early days of family planning by conducting officially sponsored reviews of the relationship between population growth and development within a particular country. The Population Council, for example, sent a group of experts to Kenya in 1965 to evaluate the population and development situation there and to suggest policies to improve Kenya's prospects for development. In 1968, the World Bank issued a report on population and development in Thailand that prompted the Thai government to begin its national family planning program.

Foreign or international groups often had more success generating government action than did local experts or organizations. These external agencies often were able to finance the projects recommended during review missions. Many criticized the process for by-passing developing country institutions: these foreign-dominated organizations first evaluated needs for lower fertility and then formulated and implemented the strategic responses. But there was considerable give-and-take between the aid donors and the recipient governments, exchanges that helped shape national family planning programs and policies.

External aid contributed to the evolution of developing country family planning programs in two ways. First, it reduced the amount of money that would be needed from national budgets to support family planning projects, and thus lessened potential opposition. The director of a local family planning program still needed approval from the ministry directly involved, and on occasion from the foreign ministry, to implement activities supported by foreign assistance funds. But foreign support allowed program managers to begin activities that otherwise would have been impossible or would have taken much longer had they depended upon funds from local budget bureaus.

Second, and perhaps equally important, international aid reduced the political risks faced by local administrators when promoting and implementing family planning projects. It allowed managers to hold the foreign sponsoring agency responsible, if needed, for problems associated with a project. When projects were successful, local administrators could acknowledge their role and take the credit for furthering national interests.

Unique local circumstances and differing political environments within countries produced very different family planning programs. The best programs, such as those in the Republic of Korea, or later in Mexico, Colombia, Thailand, or Indonesia, developed a variety of specialized activities. They combined high-quality clinical services with strong outreach activities, good information, education and communications programs, and careful evaluation and training. Weaker programs tended to emphasize only one or two components of a program, frequently reflecting the interests or skills of individuals working in different sectors.

Implementing Family Planning Programs

Family planning programs have been described as "organized efforts to assure that couples who want to limit their family size and space their children have access to contraceptive information and services and are encouraged to use them as needed."[7] Of course, programs cannot succeed unless there is public demand, but good organization and management, strong political support, and continuing financial support are also crucial.

Family planning services can be rendered through existing health systems, as they are in Kenya, Egypt, Guatemala, Turkey, or Thailand. Or, they can be independently administered through a national program, as is done in Indonesia, Jamaica, and Zimbabwe. A third alternative is to sponsor services through private voluntary organizations, such as the IPPF affiliate, Profamilia, in Colombia. Programs are usually oriented toward women, although most also offer male methods, such as the condom and vasectomy. Also, in an ever-increasing number of third world countries, contraceptives may be obtained from private physicians, clinics, pharmacies, and small retail outlets.

Five types of activities have enjoyed strong international support and have been particularly influential in the evolution of developing country family planning programs. These are: (1) demonstration projects; (2) the provision of contraceptives; (3) the support of advanced training in population and family planning; (4) assistance with national censuses and surveys; and (5) other technical assistance, including support for clinical services. These activities have been underway in one form or another since the earliest days of the international family planning movement, under the sponsorship of a variety of international agencies.

PROFAMILIA
PROGRAMAS
RURALES

Paul Harrison

Colombia's successful family planning program made services easily available in rural areas.

Demonstration Projects

Throughout the developing world, local family planning associations, university departments, or government agencies established model projects to demonstrate that (1) there was a demand for family planning services and (2) that such services could be delivered in a culturally acceptable and medically safe fashion. Government programs frequently were patterned after the successful features of these demonstration projects. In Asia, early projects in Taichung (in Taiwan), Photharam (in Thailand), Koyang and Kimpo (in Korea), and later, in Matlab (in Bangladesh), confirmed both the demand for services and the acceptability of services and outreach activities.

These projects often were cooperative ventures between local—typically government—health-care providers, university medical school faculty, and social scientists, who served as program evaluators. Generally labeled as research projects, they tended to be immune from most of the criticism of those opposed to the introduction of contraceptives. In fact, a good deal of research was completed in conjunction with such projects, but most of the projects' staffs and outside supporters recognized that the research orientation—particularly during the early days of family planning program activity in a country—was a valuable camouflage.

Local planned parenthood groups were often able to implement these projects, despite considerable opposition, simply through political or social influence. Their trustees or directors, and often a large proportion of their staffs, were drawn from the upper classes. While this may have contributed to a social distance between the service providers and their clients, it offered a measure of protection to the organization as it introduced products and ideas that were seen by many as fundamentally at odds with their country's traditional values.

Contraceptives

The availability of new contraceptives was crucial to the early development of family planning activities, particularly in the very successful programs in Asia. The IUD, for example, was the most important method in Korea and Taiwan in the late 1960s and early 1970s. The advent of the IUD allowed family planning managers to mass market a highly effective, low-cost contraceptive that was free of many of the drawbacks of other methods. Condoms and spermicides, for example, required a constant supply and often were used sporadically or incorrectly. Outside of East Asia, the pill was typically the method promoted by family planning associations and government agencies. Like the IUD, the pill was highly effective, safe, and could be distributed widely.

The ability of developing country family planning programs to promote the pill and the IUD was greatly enhanced by vast supplies of free contraceptives from A.I.D. At the same time, A.I.D.'s staff encouraged and helped finance projects to promote outreach activities, household visits for contraceptive recruitment, and the distribution of contraceptives through health outposts, small retail shops, and other community centers. These A.I.D.-supplied contraceptives were vital to the success of family planning programs.

WHO/P. Almasy

The advent of modern methods, such as the IUD, was crucial for family planning programs in Asia.

Training

A number of excellent foreign-supported training programs for developing country nationals have enhanced the quality and aided the evolution of national family planning programs. During the early years, some of the most important training activities emanated from the Population Council's fellowship program and similar support provided by the Ford and Rockefeller Foundations.

Beginning in the mid-1950s, the Population Council provided doctoral-level training for developing country nationals, many of whom were already working in universities or in government health or development ministries. The standards for fellowship awards were rigorous. The recipients comprised a core group of talented professionals who benefited from training at American universities with strong population centers.

The value of this training frequently was enhanced by continuing relationships between the trainees and their mentor faculty. The family planning program in Taiwan, for example, was helped by links between its senior staff and the University of Michigan's Population Studies Center. Likewise, graduates of population programs at Brown University or the University of Chicago, working in Thailand, the Philippines, and Indonesia, continued to work with faculty from their alma maters.

In time, A.I.D., UNFPA, and other international donors began to support programs, including short-term, applied training, that often led to graduate degrees in public health. Non-degree training also was valuable. Annual three- to six-week family planning workshops were offered by population centers at Columbia University, the University of Chicago, and the East-West Center in Hawaii. The latter two programs operated for more than 20 years.

This training was particularly important for personnel at health and development ministries in the developing world. It increased their skills and aided in the implementation of their programs. Unlike the doctoral-level training that created a group of elite scholars, short-term training concentrated on the development of a cadre of program managers who could assist in the implementation of a wide range of health and family planning activities.

Short study tours at Western medical centers also allowed developing-country physicians to learn about new developments in contraception, such as laparascopic sterilization. A large number of workshops conducted in-country also increased the number of staff who could be trained. Both short- and long-term training strengthened the technical expertise and the commitment to family planning in developing countries.

Research and Evaluation

Since the earliest days of the international family planning movement, foreign donors and thoughtful program managers have sought ways to assess the impact of family planning activities. Programs frequently included a research and evaluation unit, which had the responsibility of monitoring program performance and conducting special studies. These units generally collected and analyzed client and clinic records and used them to track patterns of acceptors as well as staff and supply resources across the network of service sites.

More recently, there has been an emphasis on upgrading management information systems to better manage contraceptive stock inventories, acceptor records, equipment and materials, and staff assignments. Interest in program operations research also has increased. Small-scale studies are being jointly designed by outside experts and local program administrators to explore ways to improve program quality, efficiency, and effectiveness.

Technical Assistance

International population and family planning organizations routinely assign foreign advisors to developing country institutions to collaborate with program managers in training local personnel and to help managers with specific activities. The Population Council and UNFPA maintain professional staff at their regional offices in the Third World for this purpose. Industrialized countries, such as the United States, Sweden, the Netherlands, or West Germany, often engage professionals as resident advisors to assist with population programs in developing countries or to provide them short-term technical assistance.

Technical assistance might consist of helping the family planning program staff expand the range of contraceptive methods offered, facilitate patient flow, improve counseling on contraceptive side effects, or evaluate new contraceptive methods through clinical trials.

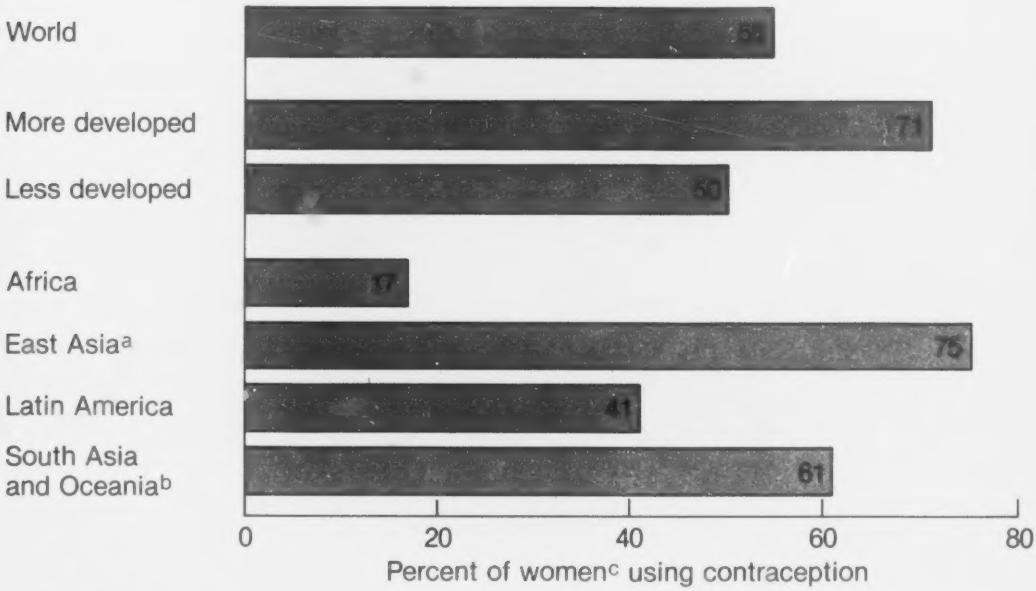
Technical advisors may also sponsor training workshops on reproductive health concerns, including AIDS or other sexually transmitted diseases, for local educators. They may introduce techniques for setting client targets, or train paramedics to insert IUDs or inject hormonal contraceptives. Technical advisors generally work closely with their host country counterparts to develop, monitor, and sustain family planning projects. At times, they have helped the national agencies secure more foreign assistance.

A major related activity of foreign and local experts at national statistical offices and universities has been the collection and analysis of population and fertility data. Population projections, estimates of growth rates, and analysis of the economic impact of population growth alerted specialists to the potential negative effects of high fertility. The United Nations Population Division and the U.S. Bureau of the Census were among the principal groups working to improve the quality of developing country census data and to increase its use for planning purposes.

Increases in Family Planning

Many of the objectives promoted by the first generation of family planners—easy access to contraceptives and government support for fertility regulation, for example—are now a reality, even in some of the world's poorest countries. Since the early 1960s, the number of men and women using contraception has grown more than six-fold, to over 400 million of the estimated 850 to 880 million married couples of reproductive age. Nearly 70 percent of these contracepting couples live in the developing world. In the late 1980s, about 50 percent of the married women of childbearing

Figure 2. Contraceptive Use in World Regions, 1990 Estimates



[a] Excludes Japan.
[b] Excludes Australia and New Zealand.
[c] Married women of childbearing age.
Note: Extrapolated from 1983 estimates.

Source: UN, *Levels and Trends of Contraceptive Use as Assessed in 1988* (New York: United Nations, 1989) p. 33.

Table 4. Contraceptive Users and World Regional Estimates by Method, 1987

	Percent using each method[a]					
			Developing countries			
Method	Total	Developed countries	Total	Africa	Latin America	Asia and the Pacific
Sterilization	35	15	44	8	39	48
Female	25	10	33	8	39	34
Male	10	5	12	0	1	14
Pill	15	20	13	38	30	9
Injectable	2	0[b]	2	8	3	2[b]
IUD	19	8	23	15	9	26
Condom	10	19	6	8	3	6
Vaginal methods	2	4	1	1	1	1
Traditional methods[c]	18	35	11	23	15	9
Total percent	100	100	100	100	100	100
Total number	437	133	304	14	35	255

[a] Married women age 15–49 in millions.

[b] Users of injectables in this region are usually combined with pill users.

[c] Traditional methods include rhythm, withdrawal, abstinence, and other methods.

Percents may not total to 100 because of rounding.

Source: United Nations, *Levels and Trends of Contraceptive Use as Assessed in 1988* (New York: United Nations, 1989) Table 13.

age in the developing world used some form of family planning. This percentage varied widely among countries and among the major world regions, ranging from only 17 percent in Africa to 75 percent in East Asia (see Figure 2).

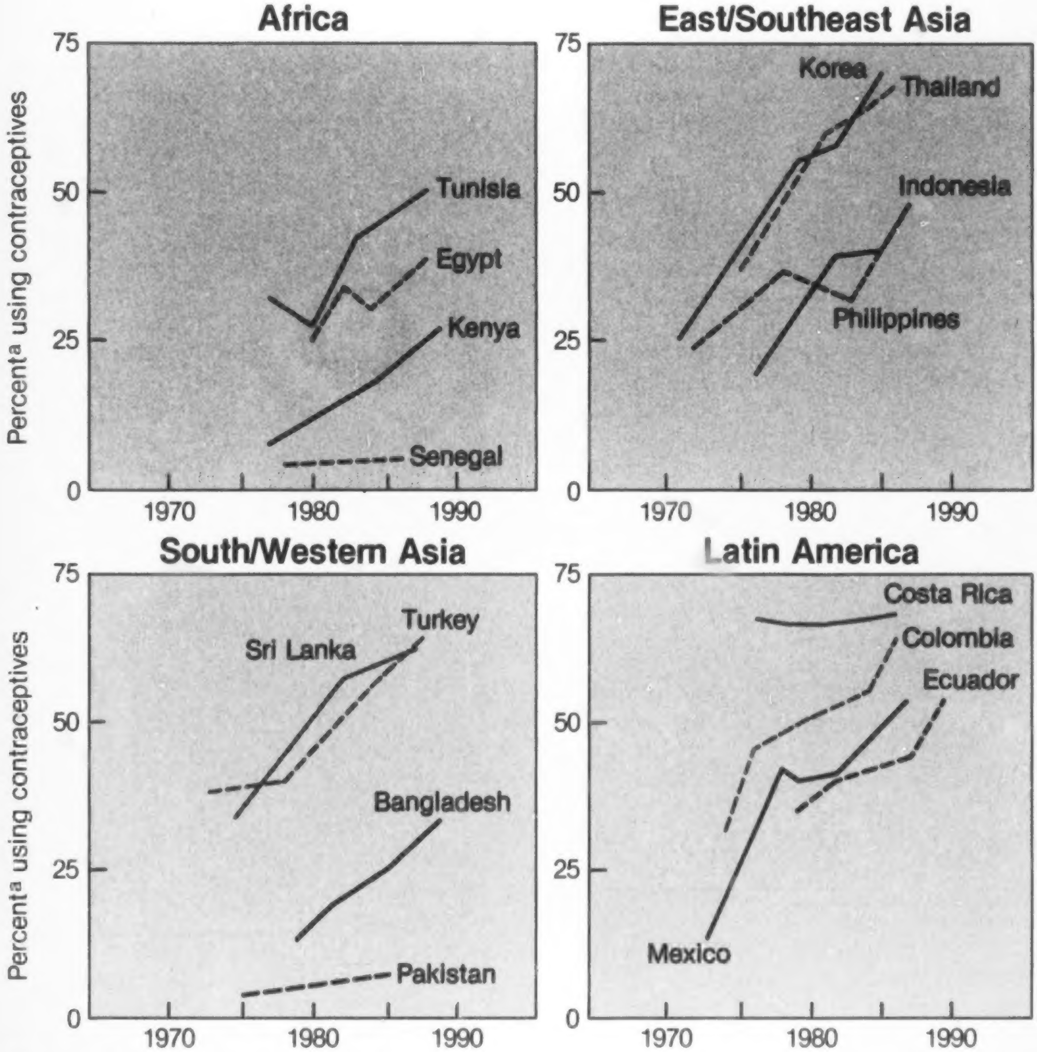
Increases in sterilization and use of modern contraceptives such as the pill and IUD are responsible for the phenomenal changes in birth control practices around the world. Sterilization is the most widely used fertility control method in the world (see Table 4). In nearly 45 percent of the third world couples who use birth control, one partner has been sterilized, with female sterilization outnumbering vasectomies by three to one. IUDs, used by some 71 million third world women, are next in popularity, mainly because of the very high levels of use in China. They are followed by the pill—used by 38 million women.

Use of traditional birth control, such as rhythm, periodic abstinence, or withdrawal, is less frequent. Even so, these methods are used by about 10 percent of the couples in the Third World. Traditional methods are more popular in developed countries where they are used by over 30 percent of all contracepting couples.

Patterns of contraceptive use vary substantially throughout world regions. Most sterilizations, for example, take place in Asia and the Pacific, principally in China and India. Sterilization represents about one-half of the birth control practiced in Asian and Pacific region, and about one-third in Latin America. In Latin America, also, the pill is almost as popular as sterilization. In Africa, about 38 percent of contraceptive users rely on the pill, and over 20 percent on traditional methods. The high level of traditional use partially reflects the widespread custom of lengthy sexual abstinence following childbirth in many sub-Saharan countries. This custom is believed to preserve the health of newborn babies.

National surveys, usually sponsored by international donor agencies, provide

Figure 3. Trends in Contraceptive Use, Selected Developing Countries, 1970s and 1980s



[a] Percent of married women of childbearing age.

Sources: Egypt 1988, Kenya 1989, and Tunisia 1988—*DHS Newsletter*, Vol. 2, No. 2 (1990); Turkey 1988—Turkish Population and Health Survey, Final Report, p. 85–86; Bangladesh 1989 and Ecuador 1989—unpublished survey reports; all others from W. Parker Mauldin and Sheldon J. Segal, *Studies in Family Planning*, Vol. 19, No. 6 (1988) pp. 335–353.

a growing body of information about family planning in developing countries. In a number of countries, more than one survey has been conducted to monitor trends in contraceptive use. Use has increased in many developing countries (see Figure 3), but there are obvious regional differences. Contraceptive use remains low to moderate (less than 30 percent of married women of childbearing age) in most of Africa, and moderate to high in the Latin American and Caribbean region. Family planning remains an exception in African countries such as Liberia, Senegal, and Uganda, where less than 6 percent of women were using contraceptives in the late 1980s, while Kenya, Zimbabwe, and Botswana have experienced impressive increases. In Central America and the Caribbean, Puerto Rico, Trinidad and Tobago, Costa Rica, and Panama have contraceptive use levels near those of developed countries, often above 60 percent. Contraceptive use never reaches 100 percent because women who are pregnant, trying to get pregnant, sterile, or not sexually active, have no reason to use birth control.

The trends in family planning use in East and Southeast Asia accentuate the patterns seen for Latin America and the Caribbean. The Republic of Korea, which has regularly monitored contraceptive use, is an example of a successful government family planning program. Some countries in southern and western Asia, such as Turkey and Sri Lanka, also show increases up to moderately high levels. Many countries in this region, such as Pakistan or Nepal, show only slight increases over time. Despite long-standing national family planning programs, contraceptive use in these countries more closely resembles the levels and trends seen for northern and western Africa.

As family planning use rises in a region or a country, the types of contraceptive methods practiced can also shift. In some cases, this shift is due to a change in the population composition of contraceptive users. Older women who already have as many children as they want, are usually the first to turn to birth control. For these women, sterilization is a convenient choice. As the practice of birth control gradually gains acceptability, younger couples opt for reversible methods to plan the timing of births. The change in the mix of methods over time may also reflect the impact of program or supply changes, such as the introduction of new methods, and a more sophisticated awareness of traditional birth control methods, as well as an increase in demand.

Female sterilization has gained popularity in many countries (see Table 5, page 24) and a growing proportion of contraceptive users rely on this method. The proportion of users relying on the pill has declined generally, while use of injectable hormonal contraceptives and IUDs has increased. In Kenya and Morocco there is still significant use of traditional methods, but in most countries, use of traditional methods has slipped. A decline in the use of rhythm, withdrawal, and abstinence often indicates that new users are bypassing the traditional methods because modern methods have become more available. It can also mean that other users are

PANOS/Earthscan

In 1990, family planning is practiced by a majority of married women of childbearing age.

Table 5. Contraceptive Users by Method, Selected Countries

		Percentage of users								
			Sterilization							
Country	Percent[a] using	Total users	Female	Male	Pill	Injectables	IUD	Condom	Vaginal methods	Traditional methods[b]
Egypt										
1975	26	100	0	0	74	0	11	0	0	15
1988	38	100	5	0	39	0	42	5	0	9
Kenya										
1978	7	100	14	0	29	14	14	0	0	28
1989	27	100	18	0	18	11	15	4	0	34
Mexico										
1976	30	100	9	0	33	6	18	6	6	21
1987	53	100	35	2	18	5	20	4	2	15
Morocco										
1980	20	100	5	10	71	0	0	0	0	15
1987	36	100	6	0	65	0	9	3	0	18
Pakistan										
1975	5	100	20	0	20	0	20	20	0	20
1985	7	100	25	0	12	12	12	25	0	12
Thailand										
1969	15	100	36	14	29	0	14	0	0	7
1987	68	100	33	9	30	13	10	2	0	2

[a] Married women ages 15–44.

[b] Traditional methods include rhythm, withdrawal, abstinence, and other methods.

Sources: Egypt 1988 and Kenya 1989 from DHS country reports, and include married women ages 45–49. All others from W. Parker Mauldin and Sheldon J. Segal, "Prevalence of Contraceptive Use: Trends and Issues," *Studies in Family Planning* Vol. 19, No. 6 (1988) Table A3.

substituting more effective methods for traditional birth control.

Increasing the accessibility of family planning has always been a high-priority issue for program managers, national health authorities, and international donors alike. A growing number of governments support wider access to family planning services and accept family planning as a basic human right and as a way to promote child and maternal health. Problems in ensuring access stem more from a government's inability—due to financial or political constraints—than an unwillingness to provide services. The United Nations, which assesses government policies on population-related issues, reports that the majority of developing countries (see Table 6) provide either direct or indirect support. Between 1976 and 1989, the number of governments that restrict access to modern birth control fell from 15 to 6. In 1989, only Kampuchea, Iraq, Laos, Saudi Arabia, Mongolia, and the Vatican still restricted access to modern birth control methods. The number of governments providing no direct support has declined from 28 to 20 countries.

Global trends in the practice of family planning, especially of modern methods, suggests that contraceptive use will continue to rise. In a relatively short period of time, childbearing in Asia, the Pacific, Latin America, and parts of Africa has been transformed; many couples can now control the number and timing of their children. Some research suggests a large unmet demand for family planning in many places, and a growing demand in areas where services are already available. The financial resources to meet this demand will come from both public and private sources.

Financial Resources

The amount of money provided by developed countries, international agencies, and developing countries is an indicator of their commitment to family planning. Typically international funding is very important during the early days of family planning activities in most third world countries. As developing country family planning programs mature, they rely more on their own resources. Although complete and accurate data are impossible to obtain, it is clear that during the years from 1965 to 1980, international funding—most of it from A.I.D.—was the major source of support for the family planning programs.[8] Today, family planning activities in many countries are financed largely by local resources. In part this change reflects the increasing institutionalization of family planning activities, and in part it reflects the fact that countries with mature programs tend to be more economically advanced and thus better able to finance program operations.

Financial Data

Family planning programs are financed by a wide range of resources, some easily tracked and monitored and some as elusive as the individual out-of-pocket donation or fee-for-service. The major sources of funds for developing country family planning activities are the foreign-assistance programs of developed country governments, the contributions of international organizations and private foundations, allocations from the developing country's own national budget, private contributions (often in-kind), and service fees collected from users (see Figure 4, page 26).

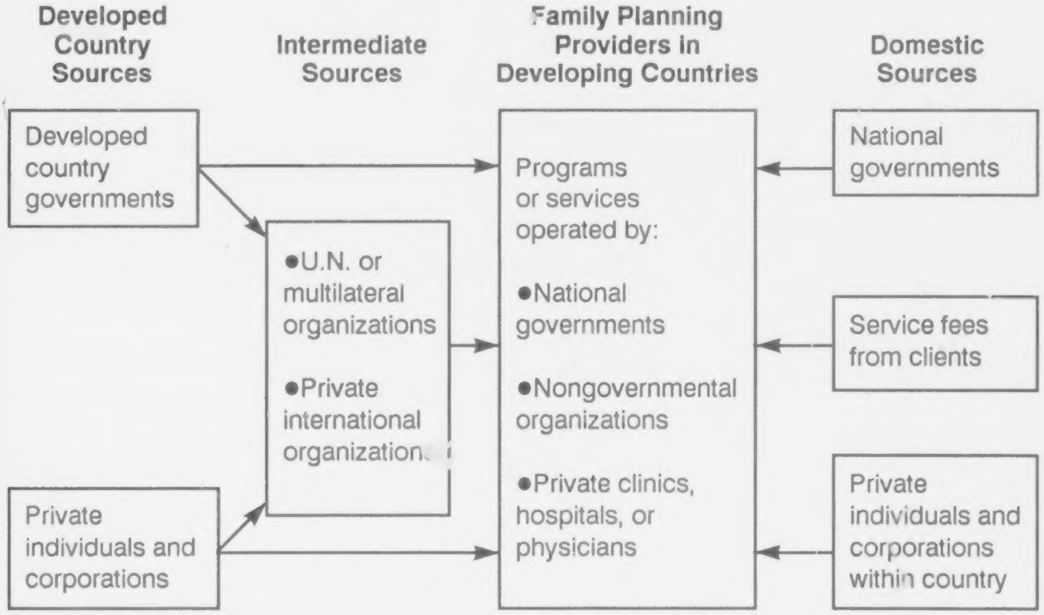
There are only limited data on trends in the type and amount of grants, contributions, inter- and intra-agency transactions, or the relative value of these resources in U.S. dollars. It is not always clear whether funding amounts listed in

Table 6. Trends in Government Policies Regarding Modern Methods of Birth Control, 1976–1989

			Access not limited		
Date of assessment	Total	Access limited	No support provided	Indirect support provided	Direct support provided
Number of governments					
1976	158	15	28	18	97
1978	158	13	27	20	98
1980	165	11	27	22	105
1983	168	7	32	28	101
1986	170	6	18	24	122
1989	170	6	20	20	124
Percentage of governments					
1976	100	9	18	11	61
1978	100	8	17	13	62
1980	100	7	16	13	64
1983	100	4	19	17	60
1986	100	4	11	14	72
1989	100	4	12	12	72

Source: United Nations, *Trends in Population Policy*, Population Studies No. 114 (New York: United Nations, 1989) Table 16.

Figure 4. Flow of Funds for Organized Family Planning Activities in Developing Countries


Developed Country Sources
Intermediate Sources
Family Planning Providers in Developing Countries
Domestic Sources
Developed country governments
•U.N. or multilateral organizations
•Private international organizations
Private individuals and corporations
Programs or services operated by:
•National governments
•Nongovernmental organizations
•Private clinics, hospitals, or physicians
National governments
Service fees from clients
Private individuals and corporations within country

Note: This represents the major sources of support for family planning in developing countries. The importance of each type of source and recipient varies tremendously by country. Not all sources contribute to all types of recipients, and not all sources and recipients of funds are included.

Source: Adapted from Dorothy Nortman, "Family Planning Program Resources: Focus on Funds," in Robert J. Lapham and George Simmons (eds.), *Organizing for Effective Family Planning Programs* (Washington, D.C.: National Academy Press, 1987) Figure 1.

government reports are proposed, allocated, or actually expended. And, it is difficult to gauge the accuracy of such reports. Technical assistance costs funded by foreign aid agencies or international organizations often are not included in estimated costs of training or research. All these factors make a careful analysis of the financing of the international family planning movement extremely difficult.

Because of the growing significance of finance issues, several international population groups have supported efforts to track the flow of international population and family planning assistance.[9] Some recent findings are reported below.

National versus International Support

Local support for family planning has grown in many developing countries—generally at a faster rate than funds from any other source. The rise in local funding in Colombia and Indonesia is typical of this trend (see Figure 5). The Indonesian government provided less than 15 percent of the funding for family planning in 1968, but it accounted for almost three-quarters of the funding by 1983. The Colombian government's share of family planning costs grew from 25 to 52 percent between 1972 and 1983.

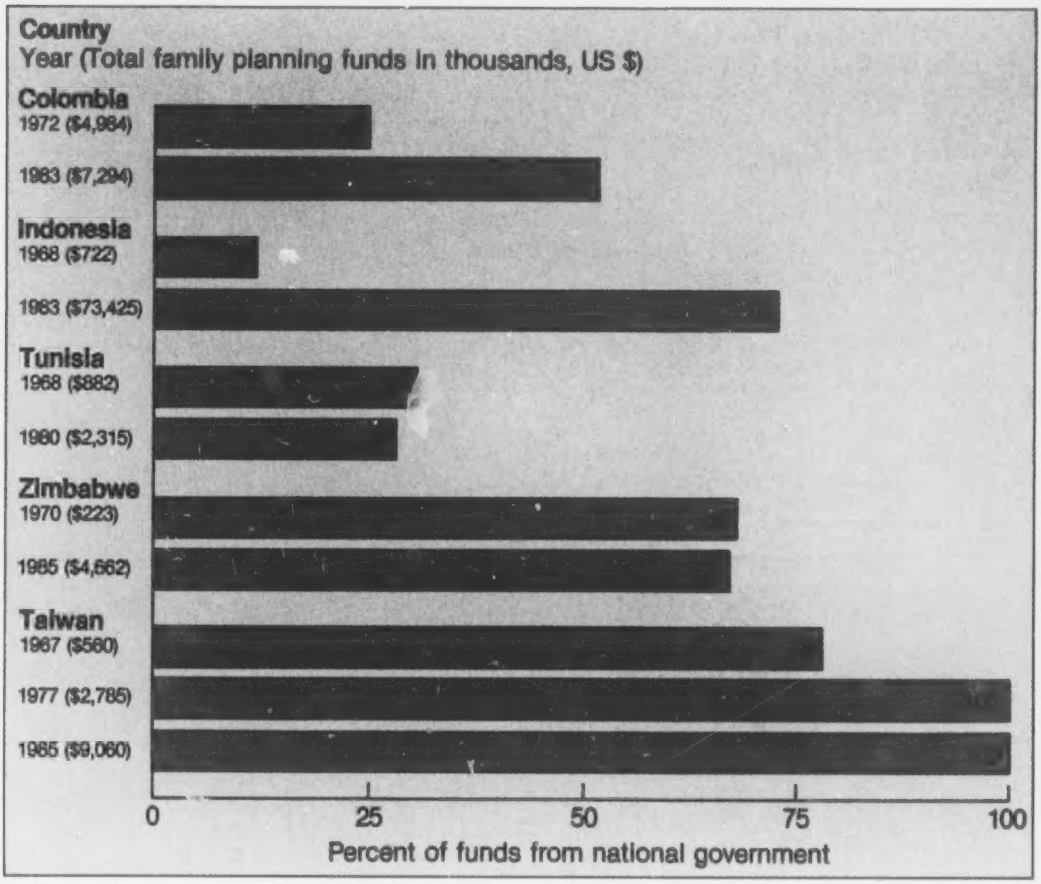
Over the years a majority of countries

with active family planning programs have shouldered a larger share of the financing of family planning activities. In absolute terms, these countries are currently providing resources far in excess of earlier levels. Zimbabwe expended about $150,000 of its own funds for family planning in 1970, roughly two-thirds of total costs of the program. By 1985, Zimbabwe was still covering the same share of the costs of the national program, but the government's commitment to family planning exceeded $3 million.

Indonesia and Tunisia also show substantial increases in the amount of family planning program costs met by local government resources. Indonesian government funds, for example, rose from $90,000 to $53.8 million ($21.3 million after adjusting for inflation) between 1968 and 1983, while donor funds increased from $279,000 to $19.6 million (or $7.8 million with inflation adjustment).

On a per capita basis, Indonesian government funding for family planning has grown from less than 1 U.S. cent per

Figure 5. Percent of Family Planning Funds Coming from National Governments, Selected Countries



Source: Ross, John, et al., *Family Planning and Child Survival: 100 Developing Countries* (New York: Columbia University Center for Population and Family Health, 1988) Table 10.

person in 1968 to over 46 cents per person in 1983 (or 18 cents, adjusting for inflation). In 1985 the government of Zimbabwe funded family planning at a per capita level close to Indonesia's, which was 20 times its 1970 support.

The fact that the governments of some large third world countries were willing to allocate more each year of their scarce budgetary resources, especially in inflation-adjusted terms, to support family planning services speaks to their high level of commitment. As mentioned, the purchasing value of international donor commitments, on the other hand, has not grown during the same period and thus not kept pace with the growth in developing country commitments.

The contraceptive users in developing countries might have borne a larger share of the costs if the full range of contraceptives had been available from the private sector, or if traditional methods, which require no supplies, were more reliable. The private sector serves only a small segment of the developing world's couples in need of family planning. The private sector, which has long been a major source of contraceptives in many Latin American countries, is gaining in importance in other regions. Its role will expand further as per capita income increases in developing countries, as contraceptive practice becomes more widespread and more accepted, and as national family planning programs encourage greater use of nongovernment sources of supplies and services in order to help reduce program expenditures. This has already led to greater use of the private sector in Indonesia, Thailand, Brazil, Colombia, and Mexico.

The contributions of international donors to developing country family planning activities have increased in current dollars, although inflation has eroded the value (see Table 7). Not including loans from the World Bank, about $300 million dollars per year was provided by international donors, such as the U.S., Swedish, and Norweigan governments, during the 13 years between 1969 and 1981, a cumulative total of over $4 billion for the period. In current dollars, annual funding has increased—1988 commitments of nearly $590 million exceed the 1985 level by over $70 million—but after adjusting for inflation, the amount declined by $100 million in just three years.

Developed country governments have been the most important sources of international support for developing world family planning programs. They contributed three-quarters of the total international aid to population and family planning activities between 1969 and 1981; the U.S. government accounted for well over half of this total. In 1985 and 1988, cut-backs in the international organizations boosted the funding share carried by the developed countries to 92 percent. In 1985, the United States committed $288 million to family planning programs in the Third World, 56 percent of all contributions. Japan, which contributed $47 million, was the second largest donor. Norway, Sweden, and West Germany were the next three leading donors in 1985. In 1988, this ranking was the same. The United States was still the largest single donor, but the U.S. funds accounted for a much smaller share of developed-country contributions, about 42 percent. In fiscal year 1990, the United States gave $253 million to population and family planning.

Although most international donors continue to be supportive, they cannot sustain previous increases in funding. This will create problems for many developing country programs as they try to meet the expanding need for contraceptives. Developing country program managers are already being cautioned by international aid officials about the rise in the need for local financing of family planning because of the lack of additional international resources and the increase in the numbers of contraceptive users, which may exceed 600 million by 2010. The number of users is expanding not only because the demand for

Table 7. Funding Sources for Developing Country Population Programs by Primary Donors

	Millions of US dollars					
	1969–1981		1985		1988	
Donor	Amount	Percent	Amount	Percent	Amount	Percent
Developed country governments	$3,036	74.4	$473	92.2	$539	91.5
United States	1,734	42.5	288	56.1	247	41.9
Japan	136	3.3	47	9.2	57	9.7
Norway	230	5.6	24	4.7	49	8.3
Sweden	265	6.5	18	3.5	28	4.8
West Germany	160	3.9	18	3.5	27	4.6
Others	511	12.5	78	15.2	131	22.2
International organizations	605	14.8	6	1.2	15	2.5
Private sector/ nongovernmental organizations	437	10.7	34	6.6	36	6.1
Total in current dollars	4,079	100.0	513	100.0	589	100.0
in 1985 dollars	na		513		419	

Note: Indirect funding through UNFPA not included in figures for international organizations.
na—not available

Sources: Nortman, Dorothy, "Family Planning Program Resources: Focus on Funds," in Robert S. Lapham and George B. Simmons (eds.), *Organizing Effective Family Planning Programs* (Washington, D.C.: National Academy Press, 1987) Table 5; UNFPA, *Global Population Assistance Report* (New York: United Nations, 1989) Tables 1 and 3.

modern methods is growing, but also because the population of childbearing age is increasing, a demographic consequence of high birth rates in the past.

Future costs will be affected by the incorporation into family planning programs of such new, more costly contraceptive methods as subdermal implants, new modes of delivering services, and the potential for local manufacture of contraceptive commodities.[10]

Continued expansion of family planning activities will depend largely on the ability of developing country governments to increase budget allocations for contraceptive services and the expansion of private sector activity. The present level of international donor funding is $500 million annually. It has not increased in purchasing power over the last decade.

The director of A.I.D.'s population and family planning program and his colleagues forecast the cost of providing family planning services in the year 2010 at $9 to $10 billion.[11] This implies that funding would need to increase by $300 million annually to achieve the contraceptive use required to meet the fertility declines projected by the United Nations. Given competing demands on international assistance for environmental protection, child survival, AIDS, and Eastern European economic reconstruction programs, it is unlikely that funds will reach these levels. It seems inevitable that third world governments and individuals will shoulder a larger share of the projected costs of contraceptive services.

Program Efficiency and Benefits

The decline in international aid in real dollars, along with burgeoning numbers of family planning users, has highlighted the need to make services and programs more cost-effective. But measuring the efficiency of programs is difficult because statistics on program-related inputs and outputs are either unavailable or inaccurate. Nonetheless, program efficiency, and the ability to evaluate it, will need to increase to serve the larger number of contraceptive users in the future.

One important cost component is family planning commodities, the contraceptive drugs or devices themselves. Although reliable cost data are not easily obtained, two developments suggest these costs can increasingly be managed, perhaps with greater efficiency, by the more advanced developing country governments. First, a substantial share of contraceptive supplies probably will continue to be donated by the U.S., European, and other developed country governments. Efforts to better coordinate donors to manage supply and cost of commodities are underway. Second, an expansion in the local manufacture of oral contraceptives and condoms may reduce costs for some countries. Such local manufacturing is currently underway in Brazil, Egypt, Indonesia, and Mexico, and may expand to other countries. So far, the use of national firms has not necessarily resulted in the lowest unit pricing for contraceptives. But as developing country governments and private sector firms gain experience, they should become more efficient.

What have developing nations and the international donor community recovered from their investments in family planning? Cost-benefit studies usually show the ratio of family planning costs to an estimate of the savings from preventing additional births. Depending on the country and program, one birth averted through family planning can save between $15 to $200 in social service costs alone. Some researchers claim that every $1 spent by the government on family planning clinic services in the United States saved at least $3 in the first year in health and welfare costs. By this calculation, the U.S. government saved over $1 billion in domestic services by spending $412 million on family planning in fiscal year 1987.[12] A recent study in Thailand shows that families with fewer children generally had more savings and better educational opportunities,[13] outcomes that some economists augured almost 35 years ago.[14]

Evaluation and Assessment

From the earliest days of the international family planning movement, there have been systematic efforts to evaluate family planning programs. Evaluation not only helped to establish their public acceptability and demographic effects, but also to develop knowledge about program implementation that could be shared internationally. Three types of evaluation and assessment techniques have been used widely since 1960 to measure the impact of family planning programs. These include national fertility and family planning surveys, demonstration projects, and the administrative records of family planning service programs and clinics.

In an era when social science has become more quantitative, family planning evaluation enjoys an advantage because of its substantive kinship with population research and its use of the statistical tools of demography and biostatistics. The advent of affordable computer power has encouraged more sophisticated models and techniques, giving rapid feedback to program managers and enabling researchers to conduct studies more efficiently.

National Surveys

National sample surveys have become the most important means for studying fertility and contraceptive use and the demographic and social factors that influence them. Beginning in the 1960s with the so called K-A-P (Knowledge-Attitude-Practice) studies, these surveys have asked women of childbearing age about their marital status, the number of children they have borne, and about their knowledge and use of family planning. Often, women's attitudes toward contraceptive use and about the optimum number of children were also recorded.

The surveys sought to assess public opinion about family size, birth control, and the role of government intervention. Indeed, survey results showed that many women wanted to control the number and timing of their pregnancies, and were supportive of family planning programs. The development of family planning programs and the use of K-A-P surveys tended to be mutually reinforcing. Despite their shortcomings,[15] sample surveys have largely displaced program service statistics, census data, or other information sources for the study of fertility and contraceptive use.

As the family planning movement expanded in the late 1960s, there was a need to obtain standardized, cross-national data to guide assistance strategies. In 1972, the International Statistical Institute in the Netherlands received a five-year, $6.8 million contract from A.I.D. to implement the World Fertility Survey (WFS) program. The WFS aimed to provide "sound scientific knowledge concerning fertility and to assist countries in developing the institutional and manpower resources for continued assessment of their fertility in the future."[16] Augmented with funding from UNFPA, the WFS became an international research program and a major innovation in demographic research.

The WFS program ended in 1984, but in its 12 years of existence, the WFS conducted surveys of fertility and contraceptive use in 42 developing countries and 20 developed countries. WFS data form the cornerstone of much of the current knowledge about fertility and family planning behavior in the Third World.

A.I.D., seeking more specific information about family planning programs, and the accessibility and use of contraceptives, then launched the Contraceptive Prevalence Surveys program, which operated from 1977 to 1985 and conducted surveys in 43 developing countries. A.I.D. then consolidated its support for fertility and family planning surveys into the Demographic and Health Surveys (DHS) program, which began in 1984 and by 1989 had conducted surveys in 29 developing countries. An additional 25 DHS surveys are planned for completion by 1993 under the second phase of the project.

One of the basic measures obtained from these surveys is the contraceptive prevalence rate: the percentage of married women (including those in consensual unions) of childbearing age (15 to 44, or 15 to 49 years of age) who are using a contraceptive method at the time of the survey. The surveys also record the kinds of methods used, the sources of family planning services, recent birth rates, infant mortality rates, and measures of the number of children women wanted. In the WFS and DHS programs, some countries included a questionnaire on community characteristics, allowing an assessment of different types of family planning facilities.

The wealth of data from these surveys has facilitated a groundswell of research on contraceptive practice, including the analysis of the quality of family planning programs. In addition, these data are being used for the refinement of statistical models of human fertility,[17] and research on the effect of closely-spaced births on child and maternal health.[18]

Demonstration Projects

Multi-year and, typically, multi-phase demonstration projects have several features that make them valuable mechanisms for family planning evaluation. First, details of the service delivery system are known through project records and reports, which facilitate assessing a specific educational approach or method of delivering contraceptives. Second, baseline surveys or client records measure the levels of contraceptive use and fertility before the project begins. After specific phases or project interventions, a follow-up assessment records changes in contraceptive practice among those exposed to the intervention and a control population. As a result, the effects of program interventions on contraceptive use can be accurately judged.

Third, demonstration projects are usually designed to serve a particular population, typically families within a given region. This facilitates transferring the project's successes, or avoiding its failures, to similar populations.

Well-designed demonstration projects can more accurately predict the success of new delivery strategies in a region than can sample surveys. However, they have limited geographic coverage, making it difficult to generalize project results to other regions or countries. And large-scale demonstration projects are costly, making them a less attractive alternative to survey-based evaluations of family planning programs. However, in part because these projects often involve funding and technical assistance from international donors, their results are made available to a fairly wide audience.

On a smaller scale, operations research programs try to duplicate the advantages of demonstration projects. Regional efforts to coordinate and test the impact of changes in the delivery of family planning services are underway through various population organizations with international funding.

Service Statistics

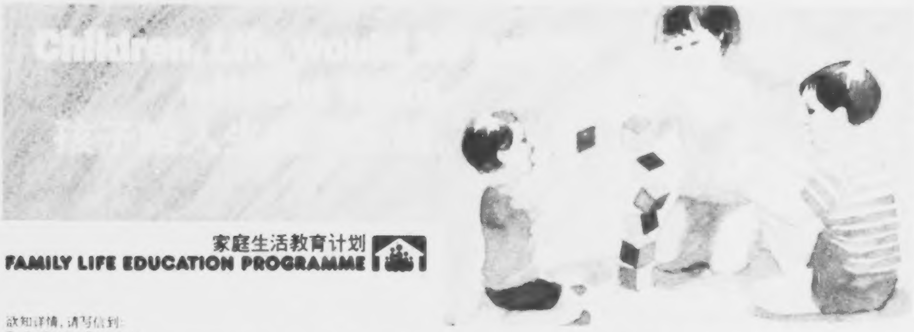
Client records and reports from national family planning programs originally constituted the principal data on family planning acceptance and use. In a clinic-based delivery system, clients who use the services—the acceptors—are logged into a central file. Their subsequent visits, whether for follow-up or to accept new contraceptives, are monitored. The patient flow at clinic sites is tracked for volume and type of services.

Through a hierarchy of medical reporting, the national program maintains the service statistics system. It reports the annual number of new acceptors and return visits by the birth control method chosen and selected personal characteristics. It also collects data on program activities, such as the number and type of service personnel and outreach activities, like the use of mobile teams. The system keeps records on the collection of any fees and tracks the inventory of contraceptive supplies in clinics.

Several drawbacks of service statistics systems limit their usefulness for program evaluation. First, they can only record contraceptives or information dispensed by the clinics. Users of rhythm or withdrawal usually do not visit clinics for family planning information or counseling and are not counted by the system. All those who obtain supplies from the private sector are also missed. Second, acceptors sometimes change clinics, making tracking difficult. Third, only limited information on contraceptive motivations or reasons for discontinuation can be obtained through client records. Finally, because clinic data are collected by so many different people, most of whom have many other obligations and little training or interest in data collection, the quality of client records is not always high enough for in-depth analysis.

In spite of these problems, recent efforts to upgrade service statistics and integrate them into an overall management information system are promising. The introduction of contraceptive social marketing programs has made it more important to monitor the flow of pill, condom, and spermicides through service statistics. The basic contraceptive use measure derived from such service statistics, that is, the couple-year of protection, remains analytically useful. In the future, the need to carefully allocate scarce resources may increase concern for the dynamics of the contraceptive supply, lending more importance to service statistics.

Box 2. Singapore: Policies to Encourage Childbearing



家庭生活教育计划
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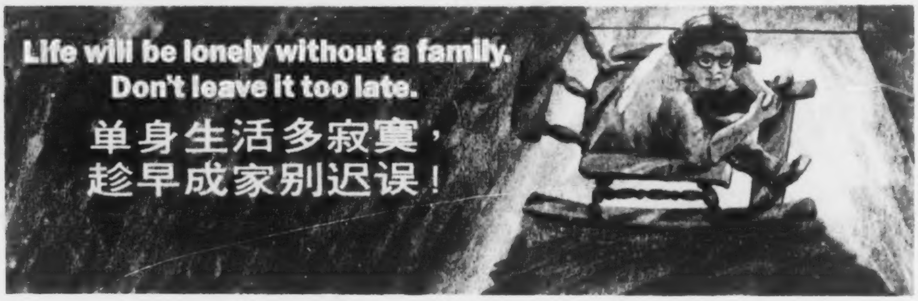
There are precious moments only families can share.

Picture yourself taking home a new baby. The awe on your children's faces as they meet their new brother or sister. The unique precious moments that follow as baby grows and learns from the family. The surge of pride and joy you experience as you both watch your children achieve more. Warms the heart, doesn't it?

You can benefit from the measures introduced which make it easier to have children now. Medisave can be used for the birth of the first three children. You can make use of the subsidised child-care services. Your children get priority in school registration when you have three. Tax relief and rebates for children are generous, especially for the 3rd and 4th child. If you are a working mother, you can claim a special tax rebate for the birth of your third child. You will also get priority for upgrading your HDB flat.

Children. Life would be empty without them.


Life will be lonely without a family.
Don't leave it too late.
单身生活多寂寞，
趁早成家别迟误！

Impact of Family Planning Programs on Fertility

Do family planning programs lead to lower birth rates? This question has raised considerable controversy among those who study fertility and family planning behavior in the Third World. On the one hand, many social scientists argue that economic development is a necessary precondition for fertility decline. The social and economic transformations brought by development and rising standards of living force couples to re-evaluate the desirability of large families and motivate them to use family planning. This view has been called the "demand" argument. In contrast, family planning advocates put forth a "supply side" argument—if birth control information and services are widely available, access to these services can prompt couples to limit their childbearing, leading to significant fertility declines without substantial economic development.

In a 1978 study, demographer John Bongaarts identified four key factors that determine fertility levels in a population: (1) the age at marriage, (2) contraceptive use rates, (3) the number of months of postpartum sterility (approximately length of time a mother breastfeeds her newborn baby), and (4) the rate of induced abortion.[19] Of the four, contraception has the strongest effect, with age at marriage second, in most developing countries today. The close relationship between the level of contraception and the total fertility rate is illustrated in Figure 6.

The main contribution of family planning programs has been improving the availability and accessibility of contraceptive services. The international family planning movement and the expansion of service delivery throughout the developing world has exposed millions of couples to these services. It is likely that these organized efforts exerted some impact of their own on fertility levels.

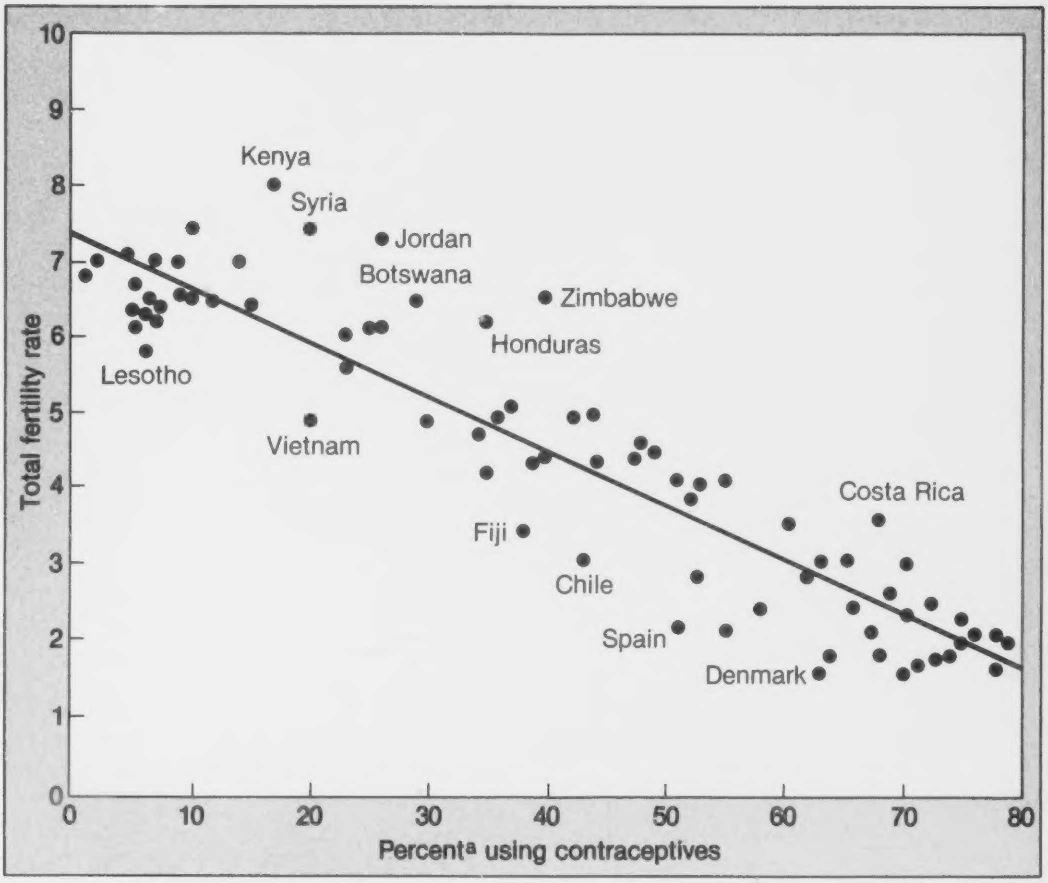
Social and economic development, in contrast, affects a broader range of variables: the age at which women marry, their motivation to use contraception, their ability to spend time breastfeeding their children, and on improvements in infant survival. Primary schooling, women's labor force participation, and rising household income all work to shift individuals' preferences toward smaller families. For example, Singapore's rapid industrialization, strong educational programs, and rise as a modern city state have created many work opportunities for women as well as men. Many young adults are currently opting either not to marry or to marry at older ages. Singapore's family planning program was so successful in reducing birth rates that, in the late 1980s, the government, fearing population decline in the future, enacted tax incentives and other benefits to encourage individuals to marry and have children (see Box 2).

Family planning programs and socioeconomic development are not the only impetus for fertility decline. Stringent government policies to increase or reduce births can have an effect. When the Romanian government severely limited access to legal abortions in November 1966, the birth rate in the country tripled in nine months, going from 12.8 to 39.9 per 1,000 between December 1966 and September 1967.[20] China's vigorous pursuit of its "one child for one couple" policy has yielded rapid fertility decline in that country.

Religious or cultural forces also may work against the forces of development, keeping fertility high. In spite of early support for family planning policy, many Middle Eastern countries with strong Islamic traditions have had little fertility change. There, as in many sub-Saharan countries, the idea of limiting the number of births was so culturally unacceptable that family planning programs were introduced as a means for promoting better maternal and child health by helping women space their births.

Disease, especially sexually-transmitted diseases (STDs) like gonorrhea, can

Figure 6. Contraceptive Prevalence and Fertility Rates, Selected Countries, 1988



[a]Percent of married women of childbearing age.

Source: Mauldin, W. Parker, and Sheldon J. Segal, *Studies in Family Planning*, Vol. 19, No. 6 (1988) Figure 3.

also lower fertility independently because they can cause sterility. Fertility levels in some sub-Saharan African nations have remained below the regional average because of the high incidence of STDs in their populations.

Can family planning programs increase contraceptive use and reduce fertility without the effects of development? A recent study by Robert Lapham and Parker Mauldin sheds new light on these questions.[21] Following the design of an earlier landmark study,[22] they tracked indicators of economic, social, and demographic conditions between 1965 and 1980 to evaluate family planning program impact. They measured the quality of national family planning programs and national commitment based on a set of 30 different factors, grouped into four components: (1) policy and stage-setting activities, (2) service and service-related activities, (3) record-keeping and evaluation, and (4) availability and accessibility.

The Lapham and Mauldin study confirmed that high-quality family planning programs can help lower birth rates and

Box 3. Thailand: A Case Study in Family Planning

The history of family planning in Thailand illustrates many of the themes in this report. Thailand's national family planning program has been particularly successful. Between 1965 and 1990, the proportion of married women of reproductive age using a contraceptive increased from 15 to 70 percent. At the same time the number of children the average Thai woman had declined substantially. In the mid-1960s the total fertility rate was 5.7 and by 1985 it had fallen to 2.8 children per woman.

Some observers argue that these changes had little to do with the Thai government's national family planning program. They argue that the fertility rate would have fallen anyway as a by-product of Thailand's economic development and concomitant social change. But most research indicates that the influence of the government program was substantial.

The government-run family planning program provided information about contraceptive use and offered people, especially those in Thailand's rural areas, reasonably easy access to a variety of contraceptive methods. Thailand was among the first countries to encourage the distribution of contraceptives by non-physicians. In the Thai case, auxiliary midwives and secondary school graduates with 18 months specialized training were authorized to provide the pill after asking potential users about a check list of medical contraindications.

The use of auxiliary midwives greatly increased the number of places where women in the rural areas could receive contraceptive services. The midwives were also allowed to collect a modest fee (about 25 U.S. cents per cycle) for the pills they provided. The impact of the fee, as an incentive for the providers, or disincentive for the users, is difficult to determine.

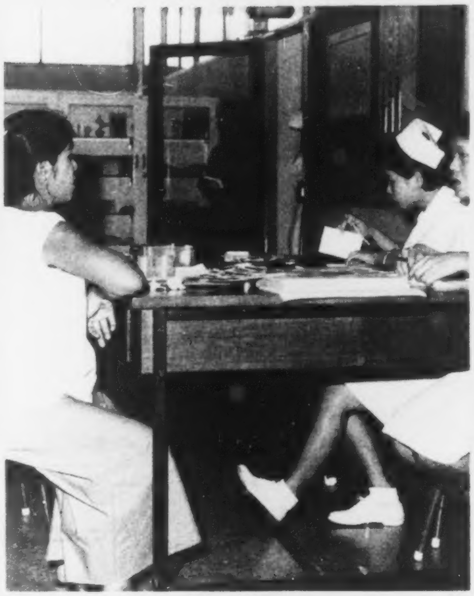
The Thai program has also been distinguished by the range of contraceptive methods that the government made available. Thailand was among the first countries to allow the use of the injectable contraceptive DMPA. It remains among the largest users of the product. Thai physicians developed simplified methods of female sterilization and, later, trained operating room nurses to perform the procedures. Sterilization is now the most widely used contraceptive method in the country. The contraceptive implant NORPLANT has recently been introduced and use is expanding.

The Thai public and officials at the Ministry of Public Health also took a liberal attitude toward abortion. Abortion is not legal in Thailand, except to save the life of a mother. Twenty-five years ago most abortions were unsafe; now safe abortion is available in cities throughout the country. No one has been prosecuted under the existing anti-abortion statute. This does not mean that the government endorses abortion as a programmatic strategy. Abortions are not performed at government hospitals but at private clinics. Abortion is viewed as an often necessary, but almost always unhappy, choice that circumstances may necessitate. As a result of this attitude, the number of abortions has been substantial (precise estimates are not available) but the quality and safety of the procedure, particularly in recent years, have been high.

The Thai program has also successfully linked public and private sector activities. The most well-known private group, the Population and Community Development Association, has at times been an outspoken critic of the government program and an innovator in service delivery and outreach activities. In less successful programs, such a situation would lead to a destructive rivalry, but the better national programs, such as Thailand's, are able to turn the competition between the public and private sector to their advantage. In the Thai case, the government endorsed local nongovernmental organizations and gave them a position on the National Family Planning Coordinating Committee. This thwarted any competition that might have developed between the public and private sector.

The Thai program has also made good use of international resources. Of particular importance was the success of several training and institutional development projects operated by Thais with foreign donor support. In general, training opportunities were used to support able and appropriate people for career work in family planning.

The Thai family planning program was also greatly helped by the country's economic development and by the cultural environment in which program activities took place.[1] Per capita income in Thailand has nearly doubled since the official population policy was announced in 1971. This increase in economic welfare has allowed the government to improve health and family planning services. And it has encouraged families to reevaluate the costs and benefits of children. This reevaluation has occurred in part because Thai women occupy an important position in Thai society. Thais have a well-established system of joint husband-wife decisionmaking about children and household matters—a situation uncommon in most developing societies.



Like the society's institutions, individual Thai are flexible and adaptable. When lower fertility seemed a sensible choice, the men and women of Thailand were able to begin contraceptive use without strong social opposition encountered in many other countries. The availability of government and privately-sponsored services made contraceptive practice easier and more acceptable, and, perhaps, more effective than it otherwise would have been.

Reference

1. Knodel, John, Aphichat Chamratrithirong, and Nibhon Debavalya, *Thailand's Reproductive Revolution: Rapid Fertility Decline in a Third World Setting* (Madison, Wisconsin: University of Wisconsin Press, 1987).

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increase contraceptive use, independent of social and economic change. Perhaps more important, their research showed that family planning programs are most effective in countries that are experiencing steady socioeconomic development. A strong family planning effort in a modern socioeconomic set-

Table 8. Contraceptive Prevalence and Crude Birth Rate Decline by Socioeconomic Setting and Family Planning Program Effort

Socioeconomic setting in 1970	Program effort[a]				
	Strong	Moderate	Weak	Very weak or none	All levels
Contraceptive prevalence rate, 1977–1983					
High	60	58	50	36	55
Upper middle	63	42	25	11	30
Lower middle	48	27	8	6	12
Low	—	19	4	3	4
All settings	59	44	23	7	26
Crude birth rate decline, 1965–1980					
High	34	31	27	11	27
Upper middle	43	23	11	3	13
Lower middle	—	18	7	2	5
Low	—	—	0	1	1
All settings	36	26	13	3	11

Note: Contraceptive prevalence based on data from 91 countries; birth rate declines based on data for 73 countries. Each country was weighted equally, not by population size.

[a] Program effort in 1982 for contraceptive use, during the 1972–1982 period for crude birth rate decline.

Sources: Robert J. Lapham and W. Parker Mauldin, "The Effects of Family Planning on Fertility: Research Findings," in Robert J. Lapham and George B. Simmons (eds.), *Organizing Effective Family Planning Programs* (Washington, D.C.: National Academy Press, 1987) pp. 666–667.

ting was associated with higher levels of contraceptive use and greater and more rapid birth rate declines (see Table 8).

A number of other studies have outlined the impact of family planning on fertility levels,[23] while others have addressed issues of measuring program impact.[24] Evaluation of the Matlab, Bangladesh, demonstration project has provided a prime example of the measured impact of a family planning project in a local rather than national or multinational setting.[25]

More recently, a major study of successful family planning programs has helped identify the interrelationships between program inputs, management and performance, and demographic change.[26] Unfortunately, this aspect of program evaluation has, to a large extent, taken a secondary role to assessing the reasons for program impact. Future research will likely direct more attention to the ways that specific characteristics within a program's environment affect the quality and efficiency of family planning services.

The family planning versus socioeconomic development debate has lost much of its fervor over the past decade. The issue preoccupied Western population scholars and some policymakers, but it was less relevant to those actively involved in the delivery of family planning services. International donors and host country professionals were more concerned with improving the availability and accessibility of birth control in Asia, Latin America, and Africa. These actors may have recognized early on that family planning is one of many important development strategies available to resolve the negative consequences of high fertility in a developing country.

A Look to the Future

Many valuable lessons have been learned from the early efforts of family planning programs. It is likely that in the future family planning will be defined, promoted, and practiced in different ways than it has been in the past. Most development specialists today regard rapid population growth as a barrier to the economic prospects of poor countries and consider family planning to be an effective mechanism for slowing growth. As we look toward the future, important changes are occurring in the family planning field—changes in program orientation, contraceptive technology, and financial support that are likely to shape the future course of the family planning movement.

Changing Orientations

There is a general consensus today that family planning should be judged as a human right and health measure and not just for its demographic or economic impact. This new emphasis is likely to become more important as existing family planning programs mature, newer ones evolve in African, Asian, and Latin American countries, and public concerns about rapid population growth lessens.

In part, this shift in emphasis reflects the changing role of the United States and other developed countries in the international family planning movement and as supporters of family planning programs in the developing world. During the earliest days of the movement when people and institutions from the developed countries were guiding and financing developing country family planning programs, more emphasis was put on what specialists call the "aggregate effects" of changes in population and fertility. Aggregate effects include such things as the impact that a particular rate of population growth or numerical increase has on savings rates, school enrollment, or infant mortality. With the institutionalization of family planning programs in different countries and increase in numbers of couples practicing contraception, attention in the movement shifted from aggregate effects to a concern for the impact of family planning on individual users and their families. Today, specialists are no longer exclusively interested in the relationship between population growth and economic development, but also in such topics as the health consequences of contraceptive use or the impact of lower fertility and slower growth on family welfare and the quality of life.

The Republic of Korea's national family planning program illustrates the changes that have taken place over the past 30 years in the family planning movement. The Korean family planning program was one of the earliest in the developing world and one of the most successful. Government and private sector efforts to encourage smaller family size and greater contraceptive use were aided by the spectacular economic growth in Korea between 1960 and 1990. Per capita income increased from $62 in 1962 to $3,600 in 1988 and the proportion of women who completed secondary school grew from 25 percent in 1965 to 86 percent in 1987.[27] These changes in education and economic circumstances influenced people's views on family size and their link to family welfare. But the family planning program also played an important role in shaping people's perception of childbearing and in providing the contraceptives that were used to regulate fertility.

In the early 1960s, fewer than 10 percent of the Korean women at risk of pregnancy were practicing family planning. The TFR was 5.4. By 1988, over 75 percent of all married women of reproductive age were using contraception; the majority of these users, or their husbands, had been sterilized. The TFR had fallen below two children per woman.[28]

The government family planning program that contributed to this remarkable change in reproductive behavior was initially based on a system of targets that established performance standards for the country's family planning outreach workers who were responsible for visiting women in their homes and encouraging them to begin to use contraception. Later, government policymakers devised a set of incentives aimed at increasing the cost of large families—such as giving housing preferences to small families—while reducing the cost and inconvenience of contraceptive practice. The early Korean family planning program was based on demographic goals that were to be achieved through the promotion of a limited number of contraceptive services, mainly IUDs, by workers charged with meeting specific contraceptive acceptor targets.

Today, a new approach to reducing fertility in Korea is being advocated. The new strategy is based on the belief that the best approach to promoting contraceptive use involves what one of the pioneers of family planning in Korea calls "humanitarian welfare [and] quality." This represents a rejection of the older demographic orientation and a new emphasis on family planning as a means to improve maternal and child health.[29] A similar transformation has taken place in other countries and in many international agencies as they have shifted their programmatic orientation from a concern with the economic consequences of rapid population growth to a focus on the effects of family planning on health, family life, and women's status.

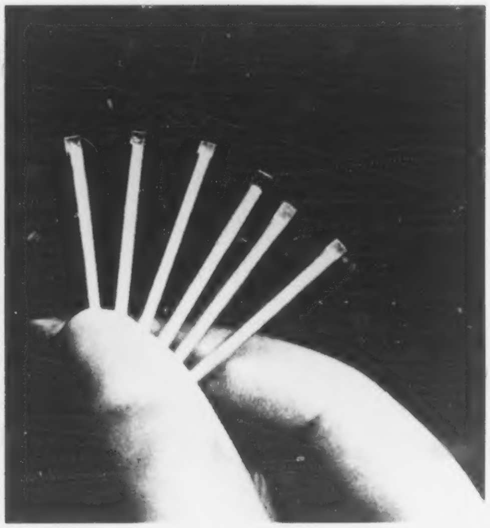
The experience of mature family planning programs such as those in Korea or Mexico suggest three other changes that will probably occur elsewhere. First, family planning services will become fully integrated into government health services. Since this typically will take place within the obstetrics and gynecological services or in programs that provide maternal and child health care, it may be more difficult for men to obtain family planning services from government than from private outlets. Second, a large proportion of users will receive services from private clinics, hospitals, pharmacies, or from individual physicians working in private practice. Third, more and more men and women will use highly effective methods; sterilization acceptance, in particular, will increase.

Contraceptive Technology

Another significant change that has influenced the international family planning movement over the past 30 years has been a steady improvement in the contraceptives available. Particularly important in many countries has been an increase in the coverage and quality of sterilization services. While there have been important improvements in the contraceptive technology, there have been no real breakthroughs in the products available to couples around the world. In this regard, the future may be very different than the past.

New contraceptive methods may become widely available in coming decades if they meet scientific and governmental approval. NORPLANT, under development for almost two decades, recently became available in 12 countries, and is used by some 250,000 women worldwide.[30] The method involves implanting tiny silastic tubes filled with the hormone progestin under the skin. The hormone is slowly released into the body and can provide contraceptive protection for about five years, or until the device is removed. The now-controversial drug RU-486, which enables early abortion without surgery, was first marketed in France in 1988, and may eventually gain acceptance in other countries.

Other new technologies that offer safe and more effective contraceptives are also being studied. Among these are a contraceptive vaccine that causes a woman's immune system to interrupt the action of pregnancy hormones, and a male contraceptive pill, already being tested in China, that hinders sperm activity. Also, a test for accurately detecting



Population Council

NORPLANT capsules, inserted beneath a woman's skin, protect her from pregnancy for five years.

ovulation is being researched, which would enhance the effectiveness of rhythm and other natural family planning methods.

Worries about the health consequences of available contraceptives cause large numbers of women either to stop using particular methods or not to begin using a given method. New technology, if proven safe and effective, could then have a very significant impact on family planning programs. But such innovations may not be widely available to couples in the developing world for at least another 10 to 15 years. Moreover, cost or problems in delivery systems may limit the availability of new methods in some places for much longer.

Program Finances

In the future, developing countries will be expected to finance a greater share of their family planning activities than they do today. When countries were beginning national family planning programs and the number of users were small, A.I.D. could, and did, supply the needed commodities and financial support. At first, the number of programs with a high demand for contraceptives was small. In the 1990s, however, A.I.D.'s budget is lower in real terms than it was in the late 1970s and the number of countries wanting free contraceptive commodities has increased. Most importantly, the number of women and men desiring to practice family planning has grown significantly and is likely to increase further.

Some developing countries, such as Nigeria, have already experienced occasional shortfalls in contraceptive supplies. Additional shortfalls are likely as countries fail to obtain sufficient local and international resources to supply contraceptives to all those who need them. This may cause problems in countries where support for family planning among political leaders, government officials, and budget bureau executives is weak. Although, local manufacture of contraceptives may be possible in some large developing countries with sizable local markets, it will not be a panacea. Costs will be high and quality control and distribution may be difficult.

Future Directions

Debates about the moral, medical, social, and economic dimensions of family planning will probably decline as family planning programs mature and the practice of contraception grows in Africa and the Middle East, as it has in Asia and Latin America. Controversy may return, however, if conservative or fundamentalist ideas gain popularity, or if people become concerned about the potential negative consequences of very low fertility and zero population growth, as they now are in parts of Western Europe and in Singapore. For the foreseeable future, though, fertility regulation will almost surely become an accepted part of everyday life among an even larger majority in the developing world.

Countries beginning family planning programs will face many of the same issues that those with mature programs have faced. There will be a need to gain political support for a family planning policy and resources for the provision of services. New programs will have to organize training, promote outreach, and provide a full range of contraceptive services, if they are to be successful. One difference in the future will be that developing countries newer to family planning will be called upon to finance a larger share of program costs than was the case in the past.

The importance of international donors will probably decline. There is already some evidence of a decline, creating problems for family planning activities as national organizations struggle to make up for the contributions once provided by the large bilateral or international donors. The commitment and support of the majority of third world countries continues to grow, as does that of Japan, Western Europe, and Canada. In contrast, support from the United States, the largest donor, is waning. Loss of donor funds for contraceptives has disrupted services in several countries, especially over the short term. However, once contraceptives are used by half or more of the eligible population and the TFR is about three, the demand for contraceptives and the ability of people to buy them typically are strong. This may mitigate any devastating effects that withdrawal of international support may have. Particular organizations and groups of users may still face serious shortages of needed resources. In the end, the ability of local family planning organizations, developing country governments and consumers to meet a larger share of the costs of contraceptive services will be a key measure of the successful institutionalization of the international family planning movement in the developing world.

Eduardo Quintana

Family planning has allowed individuals to participate in the shift to a modern society.

The international family planning movement has been an important part of the transformation of the developing world that has occurred since the end of World War II. Most people think of this transformation in terms of higher incomes, increased life expectancy, more industrial employment, and other elements of the transition from traditional agricultural societies to modern industrial ones. Family planning has been a crucial part of these changes. In a sense, it has been a liberating influence. By enabling individuals in developing countries to regulate their fertility, the international family planning movement has allowed them to take advantage of the opportunities of the modern age ☐

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Discussion Points

1. Discuss the historical events that helped shape the family planning movement. Consider the social, political, and economic arenas. Which were more important in developed countries? In developing countries?

2. Describe the opposition to the family planning movement in developed countries. Who was opposed to family planning? What did they do to fight it?

3. The methods and ideas of some early family planning leaders were considered to be radical. What events helped give the movement broader appeal?

4. Describe the evolution of the arguments used to promote family planning in developed and developing countries? What are some of the current justifications used to promote and discourage family planning?

5. What is the level of U.S. government support for the international family planning movement? How much has this support changed over the years? Why did it change?

6. Discuss the positive and negative factors for a country receiving outside support to implement a family planning program. Consider social, economic, and political factors.

7. Do you agree or disagree with the following statement?: Family planning programs in developing countries are largely initiated, funded, and implemented by groups from industrialized countries. Support your opinion with facts.

8. What challenges do leaders in developing countries face as the demand for family planning services rises in these countries?

9. What factors affect the level of fertility in developing countries? How are these interrelated?

10. In your opinion, is it appropriate for industrialized countries to actively participate in the family planning activities of developing countries? If so, in what capacity?

Prepared by Kimberly A. Crews

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POPULATION BULLETIN
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Germany's Population: Turbulent Past, Uncertain Future

By Gerhard Heilig, Thomas Büttner,
and Wolfgang Lutz

A publication of the
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Abstract—When the two Germanies were reunited in 1990, 16 million East Germans were added to the West German population, giving it a 20 million person advantage over Italy, France, and the United Kingdom. This *Population Bulletin* traces the history of German population growth from the 1870s through World War II and up to the present. The authors examine the demographic trends of the new Germany and the prospects for future growth.

Until 1990, marriage, fertility, and mortality followed different paths in the two countries. The wealthier West German women delayed marriage and childbearing, for example, and West German men lived longer than East German men. But these differences may reflect the pronatalist policies, repressive politics, and sagging economy of the former German Democratic Republic. Unification may eliminate many of these differences.

Immigration—which triggered the demise of East Germany—has long played a crucial role in German demography. In recent decades, the influx of guestworkers from southern and eastern Europe has raised many sensitive issues for the public and policymakers.

What will the future bring? Even if immigration and fertility increase, Germany faces population decline in the long term. The social and economic problems associated with an aging population remain a major concern of German policymakers.

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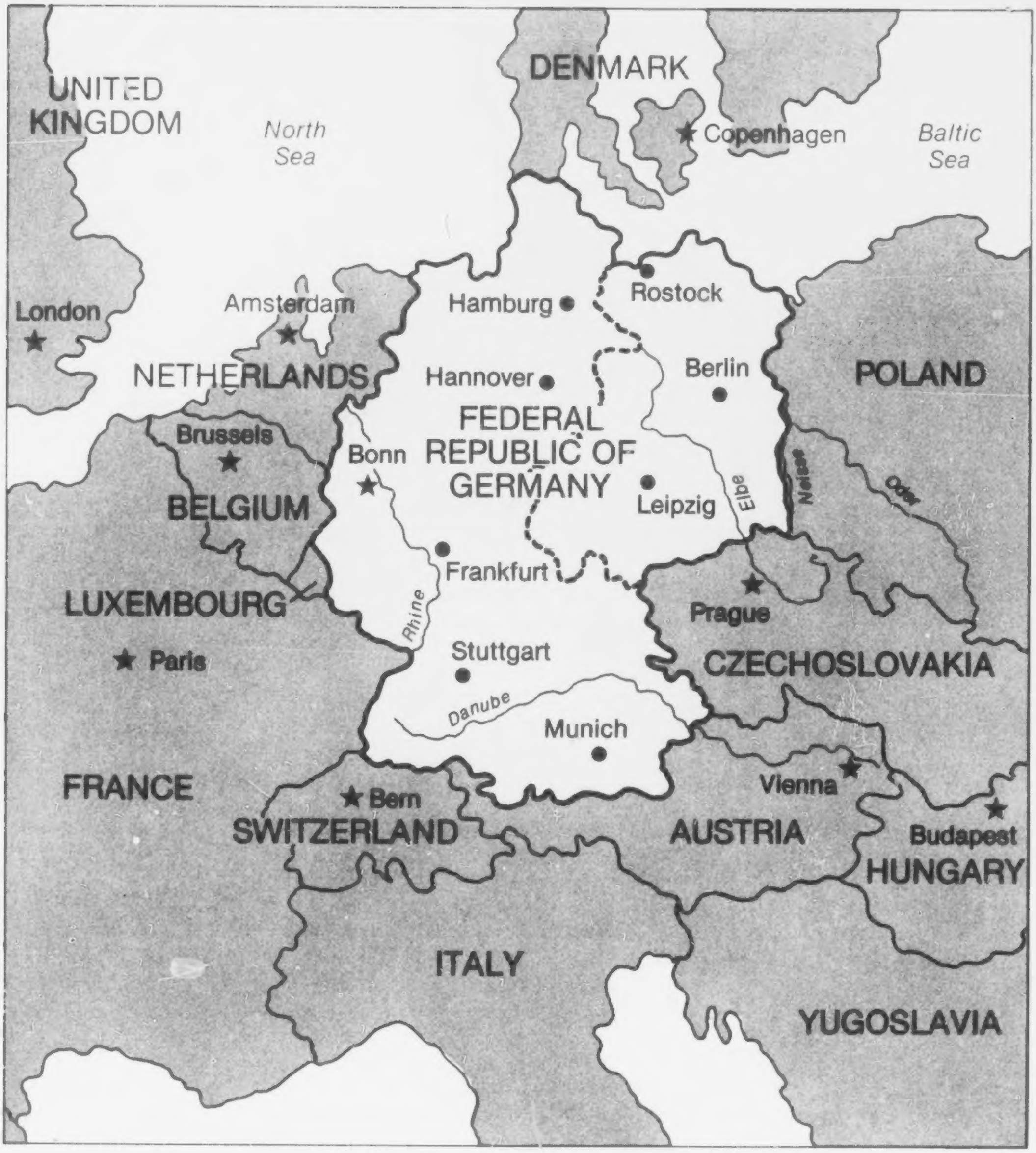
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Germany's Population: Turbulent Past, Uncertain Future

By Gerhard Heilig, Thomas Büttner, and Wolfgang Lutz

Gerhard K. Heilig is a senior research scholar with the Population Program at the International Institute for Applied Systems Analysis (IIASA), in Laxenburg near Vienna, Austria. He received his Ph.D. in sociology from the Technical University of Munich, and a postdoctoral degree from the University of Bamberg. While an assistant professor at the University of Bamberg, Dr. Heilig worked on population, food and development issues. He has published 50 articles and two books, mainly on Third World and European demography. More recently, his research has focused on nuptiality and fertility in Europe.

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In a year of breathtaking change in Europe and the USSR, one of the most astonishing alterations of 1989–1990 was the swift collapse of East Germany and its reunification with West Germany. Much of the explanation and impact of these events lies in the economic and political spheres. But a fundamental demographic process, migration, played a key role. This union creates a state that is far larger in population than any other country in Europe except for the Soviet Union, which spans both Europe and Asia. With a population of nearly 80 million (as of mid-1990), the united Germany contains about 20 million more people than the next largest states of France, Italy, and the United Kingdom. Population size alone does not provide political power, but in conjunction with the strength of the West German economy, the potential for political and economic dominance suddenly has increased considerably.

While a reunified Germany is regarded by many observers as an economic superpower, the demographic dimensions that underlie the new German state raise some perplexing policy questions for the reunited country. In recent years, for example, both East and West Germany have experienced fertility levels that are well below the long-run replacement level. Will the new united Germany reverse this trend and avoid a significant population decline? What role will immigration play in Germany's population and labor force growth? How will the aging of the population affect Germany's economic vitality? Will the united Germany assume the demographic trends and characteristics of East or West Germany, or will unity bring a blending of patterns and a new demographic future?

This *Population Bulletin* looks at the demographic foundation of the past, present, and future of Germany. It describes how migration helped precipitate reunification and discusses the broader policy issues of immigration within German society. It also provides data on past and current patterns of marriage, divorce, family formation, and household characteristics of the German population. In addition, it looks ahead to Germany's future, providing projections of the reunited country's future population size and composition.

Germany in 1990

On October 3, 1990, the former German Democratic Republic (GDR) became a part of the Federal Republic of Germany (FRG). The unification added 16.4 million citizens, making the new German nation's population 79.1 million. While this did not create a demographic "superpower," it raised Germany well above every other European nation. Its population is now some 20 million larger than that of Italy (57 million), the United Kingdom (57 million), or France (56 million) (see Table 1).

Unification also brought Germany more land area. Unified Germany now occupies about 357,000 square kilometers (nearly 140,000 square miles). Lying in the midst of the continent and sharing borders with nine other countries, Germany essentially divides eastern and

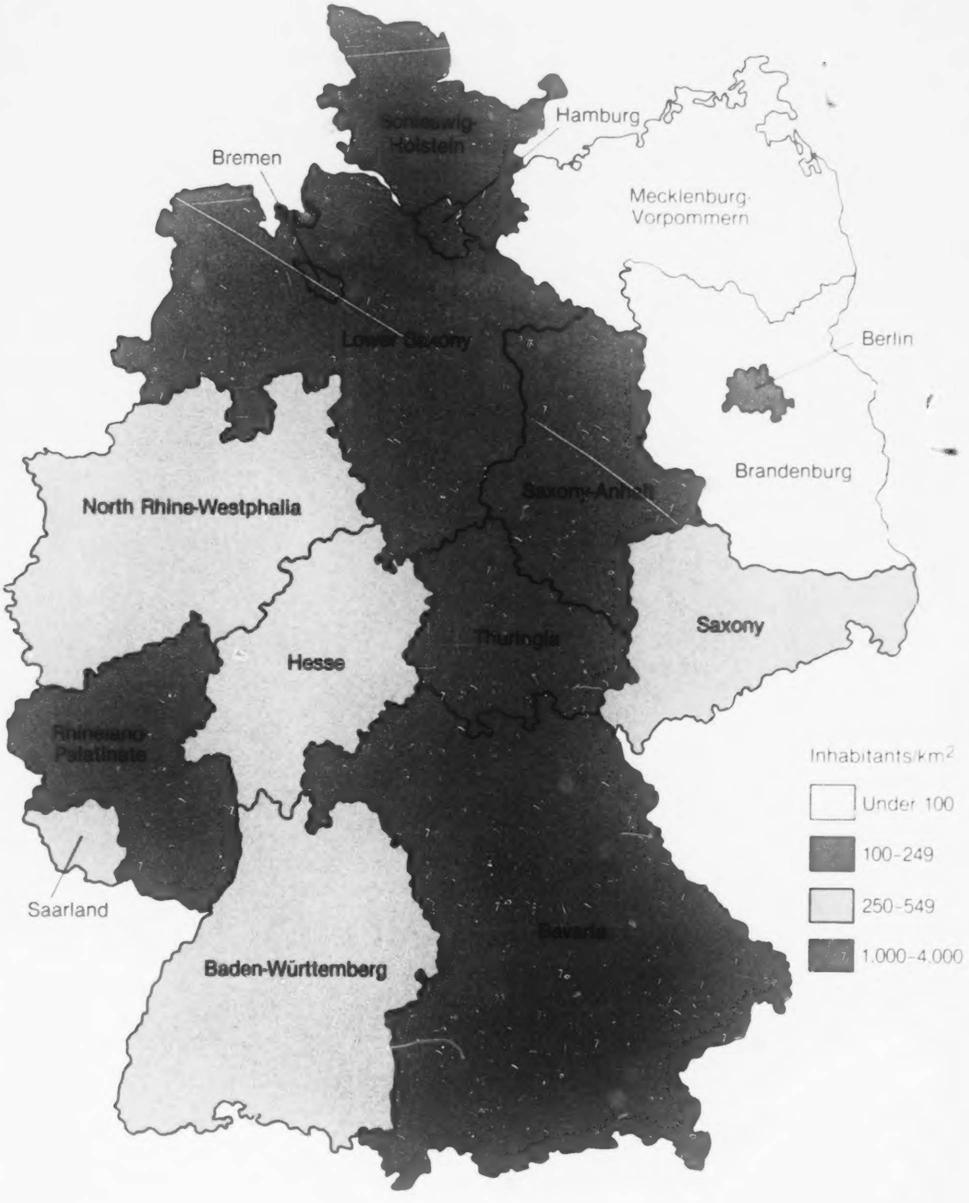
Table 1. Population Statistics for Germany and Selected European Countries, 1989–1990

Country	1990 population (millions)	Births (per 1,000)	Deaths (per 1,000)	Natural increase (per 100)	Total fertility rate*
Germany					
West	62.6	10.9	11.2	−.03	1.4
East	16.4	12.0	12.4	−.04	1.7
Western Europe					
Austria	7.6	11.5	10.9	+.06	1.4
Belgium	9.9	11.9	10.7	+.12	1.6
France	56.4	13.8	9.4	+.44	1.8
Netherlands	14.9	12.7	8.7	+.40	1.5
Switzerland	6.7	12.2	9.2	+.30	1.6
Northern Europe					
Denmark	5.1	11.5	11.6	−.01	1.6
Finland	5.0	12.8	9.9	+.29	1.7
Norway	4.2	14.0	10.6	+.34	1.8
Sweden	8.5	13.6	10.8	+.28	2.0
United Kingdom	57.4	13.6	11.5	+.21	1.8
Southern Europe					
Greece	10.1	10.8	9.3	+.15	1.5
Italy	57.7	9.9	9.3	+.06	1.3
Portugal	10.4	11.9	9.6	+.23	1.6
Spain	39.4	11.2	7.9	+.33	1.5
Eastern Europe					
Bulgaria	8.9	13.1	12.0	+.11	2.0
Czechoslovakia	15.7	13.3	11.6	+.17	2.1
Hungary	10.6	11.7	13.2	−.15	1.8
Poland	37.8	14.9	10.1	+.48	2.1
Romania	23.3	16.0	10.7	+.53	2.3

*The average number of births per woman during her lifetime.

Source: United Nations, *Population and Vital Statistics Report, data available as of October 1990;* PRB, *1990 World Population Data Sheet.*

Figure 1. Population Density in Germany, by State, 1990


Schleswig-Holstein
Hamburg
Bremen
Mecklenburg-Vorpommern
Lower Saxony
Berlin
Brandenburg
North Rhine-Westphalia
Saxony-Anhalt
Saxony
Thuringia
Hesse
Rhineland-Palatinate
Inhabitants/km²
Under 100
100-249
250-549
1,000-4,000
Saarland
Bavaria
Baden-Württemberg

Note: No state fell into the 550-999 category.
Source: Table 2.

western Europe. Its northern borders touch both the Baltic and the North Seas. Both its size and location have granted Germany strategic importance in modern Europe.

Germans are not a homogeneous group. Regional diversity has long been a hallmark of the German people. The union of the eastern and western sections of the country in 1990 brought together people who share the same language but differ in many ways. A large proportion of southern Germans are Catholic, for example, while the residents of the new eastern states are mostly Protestant. West Germans also tend to be more conservative on some social issues than are East Germans.

The most fundamental differences between the east and west were political and economic. The German Democratic Republic adhered to a strict socialist regime while the Federal Republic emerged as a success story for capitalism. A thriving economy brought West Germans many advantages over their counterparts in the East. While official unemployment was nonexistent in the GDR, East Germans had lower incomes and lower living standards. The vast majority of West German households (97 percent) had an automobile in 1988, while only 52 percent of East German households had one. Less than one-half of the households in the former GDR had a freezer in 1988 and only 10 percent had an automatic washing machine. These conveniences are commonplace in West German households.

The population is very unevenly distributed geographically (see Figure 1). West Germany is one of the most densely settled areas in Europe, with an average population density of 252 persons per

Table 2. Population and Vital Rates in German States, 1988–1989

Federal state	1989 population (thousands)	Population density per km2[a]	Birth rate	Death rate	Natural increase (percent/year)
			(per 1,000 population)		
Bavaria	11,221	159	11.5	11.0	+0.5
Lower Saxony	7,238	153	10.6	11.7	−1.0
Baden-Württemberg	9,619	269	11.7	9.9	+1.8
North Rhine-Westphalia	17,104	502	11.0	11.2	−0.2
Brandenburg (GDR)	2,641	91	12.4	11.8	+0.6
Mecklenburg-Vorpommern (GDR)	1,964	82	13.4	10.7	+2.6
Hesse	5,661	268	10.5	11.2	−0.7
Saxony-Anhalt (GDR)	2,965	145	11.7	12.7	−1.0
Rhineland-Palatinate	3,702	186	10.8	11.6	−0.8
Saxony (GDR)	4,901	267	11.2	13.6	−2.4
Schleswig-Holstein	2,595	165	10.6	11.9	−1.2
Thuringia (GDR)	2,684	165	11.7	12.6	−0.7
Saarland	1,065	414	10.1	11.7	−1.6
Hamburg	1,626	2,154	9.5	13.2	−3.6
Bremen	674	1,668	9.8	12.7	−2.9
East Berlin	1,279	3,174	13.2	10.4	+2.8
West Berlin	2,131	4,436	10.1	14.4	−4.3
Total Berlin	3,410	3,862	11.2	12.7	−1.6
East	16,434	152	12.0	12.4	−0.4
West	62,636	252	11.0	11.3	−0.3
Germany	79,070	222	11.1	11.4	−0.3

* 1986 data　**1988 data

Source: Central Statistical Office, Wiesbaden; individual statistical bureaus for West German states; estimates for former East German districts were based on official statistics that will be subject to revision under a unified statistical system.

square kilometer in 1989. The heaviest population concentrations are in the industrial areas of North Rhine-Westphalia (*Ruhrgebiet*), along the Rhine, and in the urban areas of Hamburg, Hannover, Frankfurt, Stuttgart, Nürnberg, and Munich.

East Germany, with an average population density of 152 persons per square kilometer, is sparsely populated by comparison. In the northern and western part of the former GDR several large rural districts contain just 30 to 40 persons per square kilometer. Heavy population concentrations are limited to Berlin and the southern industrial districts around the cities of Leipzig/Halle, Dresden, and Chemnitz (the former Karl-Marx-Stadt).

Most other demographic indicators also vary regionally. The total fertility rate (TFR)—the average number of children each woman will have under current fertility rates—varies between 1.9 in Mecklenburg-Vorpommern and 1.2 in Bremen. Female life expectancy at birth is 78.8 years in Hesse and 75.1 years in Brandenburg. Infant mortality ranges between 5.8 infant deaths per 1,000 births in Bremen to 9.7 in Saarland. While there is natural population growth of 2.6 persons per 1,000 population each year in the sparsely populated East German state of Mecklenburg-Vorpommern, in most West German federal states deaths actually exceed births. Population declines are greatest in the states of Hamburg, Bremen, and Saxony, which are losing between two and four persons per 1,000 every year through an excess of deaths (see Table 2).

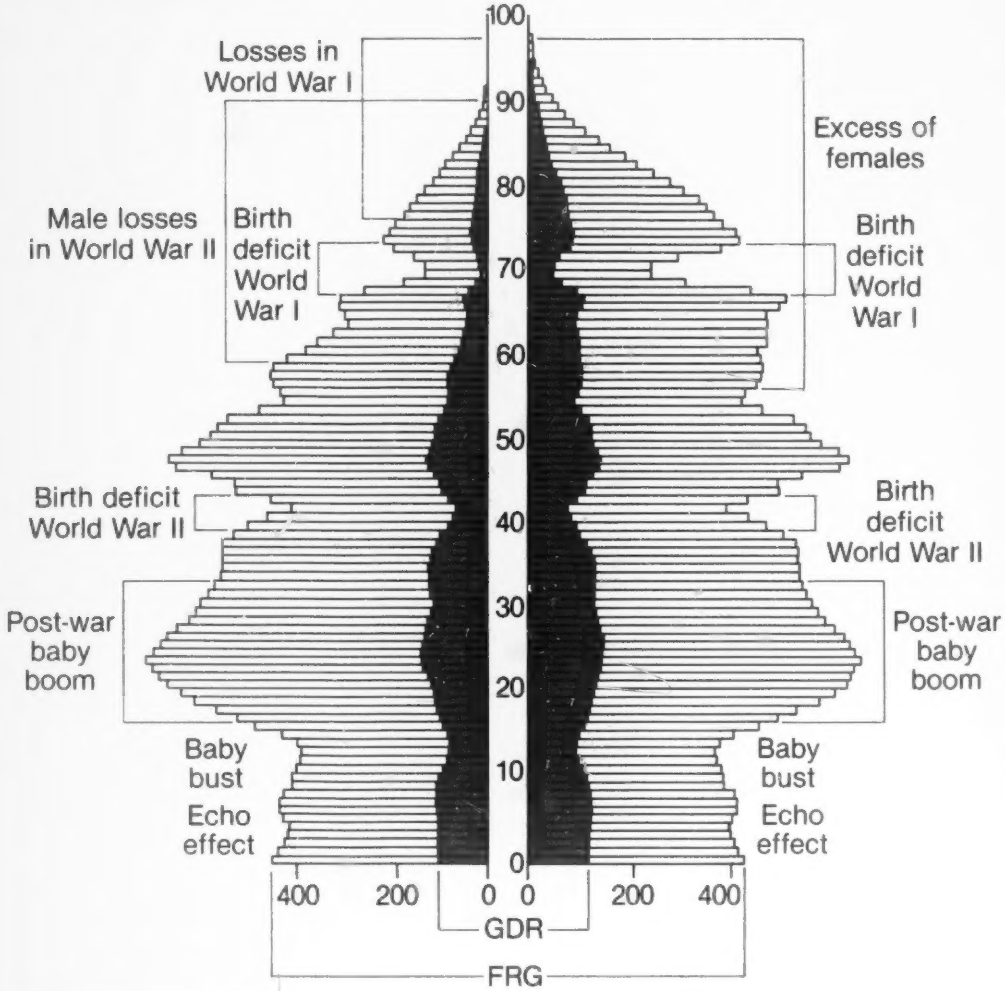
The age structure in East and West Germany reflects the social, political, and economic turmoil that has plagued the European continent during the past 100 years. A graph of the 1989 age structure (Figure 2) points to the major events that affected Germany's demographic history: the sharp decline in births during World Wars I and II and during the worldwide economic recession of 1932. War casualties from World Wars I and II are still reflected in the dearth of males over age 60 (although higher life expectancy for women is the major reason for the larger number of women at older ages). Of the estimated 5.25 million Germans who died in World War II less than 10 percent were civilians—most were men in uniform.

One of the most characteristic features of European age pyramids is the bulge of the post-war "baby boom," immediately followed by the smaller birth cohorts of the "baby bust." In Germany, the largest birth cohorts after the war were born between 1961 and 1967. The baby boomers strained Germany's education system as they proceeded through their school years. During the 1980s, they faced strong competition when entering the university or seeking jobs. At the same time the smaller group of Germans born during the baby bust

Infant mortality rate[b]	Life expectancy at birth[c]		Total fertility rate[d]
	Male	Female	
6.8	70.9	77.4	1.5**
7.5	70.7	77.4	1.4**
6.7	71.8	78.1	1.4*
8.2	71.8	78.4	1.4**
7.7**	69.4	75.1	1.7
6.7**	68.2	75.2	1.9
7.4	72.6	78.8	1.6**
8.2**	69.2	75.2	1.6
[illegible]7	70.4	77.1	1.4**
5.8**	70.5	75.9	1.6
6.7	71.0	77.4	1.5**
9.0**	69.7	75.6	1.5
9.7	69.2	76.2	1.3
8.0	70.5	77.3	1.3
5.8	69.9	77.3	1.2*
7.6	70.2	75.3	1.5
8.6	68.6	75.8	1.4*
8.1**	-	-	1.5
7.6	69.6	75.5	1.6
7.5	71.8	78.4	1.4
7.5**	71.3	77.8	1.5

[a] 1 square kilometer = 0.61 square miles
[b] Infant deaths per 1,000 births per year
[c] based on 1985–1986 life tables
[d] Average lifetime number of births per woman under current age-specific fertility rates

Figure 2. United Germany's Population by Age and Sex, 1989



Source: Statistical Yearbooks, West (FRG) and East (GDR) Germany.

of the mid-1970s was entering the educational system. Beginning in the late 1980s there has been a slight increase of births. This upturn in births is primarily an "echo-effect" created by the baby-boom generation as it entered the child-bearing ages.

Another prominent feature of Germany's current age structure is its large population of elderly. Like other European countries that have had low fertility for decades, the population is aging rapidly. In 1946, only 9 percent of the population was over age 65. In 1990, more than 15 percent of the population was age 65 and over; by 2020 that percentage could reach 25. In most European countries, 12 to 15 percent of the population is 65 or older, placing Germany just above average for the region.

Conversely, the percentage of children under age 15 has been declining from 25 percent in 1946 to about 15 percent in 1990. Despite the shifts at the extremes of the age structure, however, the percentage of Germans aged 15 to

64 has changed little since World War II. In 1990, an estimated 70 percent of Germans were in the prime working ages. The overall dependency ratio, or the ratio of the number of persons of working age to those in the dependent ages (under 15 and over 64), has actually declined slightly since 1946, from 0.51 to 0.44. Low birth rates and the consequent drop in the under-15 age group are the prime reason for the decline.

Marriage patterns have varied substantially between East and West Germans. East Germans have been more likely to marry, and at a younger age, than West Germans. At the end of the 1980s, marriage rates in East Germany ranged from 7.9 to 10.2 marriages per 1,000 population; in West Germany they varied from 5.9 to 6.6, conforming to the predominant pattern in other western European countries.

While in other European countries a large proportion of young couples live in a nonmarital union (30 to 44 percent of Swedes in their 30s live together without marrying), only a small minority do so in West Germany. In 1988, roughly 0.8 million couples lived together outside marriage in West Germany, less than 3 percent of all households. Also, while nearly one-quarter of all births in England and France, and one-half of births in Sweden occurred out of wedlock in the late 1980s,[1] West German births have remained a product of legal marriage. More than 90 percent of all West German couples marry before, or shortly after, they have a child. In East Germany, in contrast, one-third of all births occur out of wedlock.

But the relatively low proportion of nonmarital unions understates the fundamental changes that have occurred in German society in the past few decades. In 1972 only some 130,000 West German couples (of all age groups) lived in nonmarital unions. By 1988 this number had increased six-fold.[2] The shifts since 1972 are likely harbingers of further movement away from traditional marital patterns. Also, more and more German adults are remaining single; the single lifestyle has become a common alternative to either marriage or nonmarital unions.

Germany's Demographic History: 1871–1946

Prior to 1871, there was no German national state, just a collection of diverse states that shared a common ethnic and linguistic heritage. In that year, the Prussian statesman, Otto von Bismarck succeeded in bringing together these fiercely independent political units to form a German nation-state of some 41 million persons. The German Reich of 1871 encompassed about 40 percent more territory than unified Germany today. As 19th century Germany was undergoing this profound political change, it was also experiencing fundamental social and economic changes that helped transform it from a predominantly agrarian state into a highly industrialized urban society.

These social and economic changes were triggered by the Industrial Revolution, which had begun in Great Britain toward the end of the 18th century and swept across most of Europe during the next 100 years.[3] New values and aspirations arrived with new technologies and more efficient methods of production, affecting all aspects of everyday life. New types of households and living arrangements arose as more people left their farms to seek a livelihood in urban areas. The historically high birth and death rates began to fall, ushering in what is commonly known as the "demographic transition."

Germany's Demographic Transition

In the 1870s, Germany's population was growing at more than 1 percent a year. High birth rates and declining death rates caused natural increase (the excess of births over deaths) to rise. The

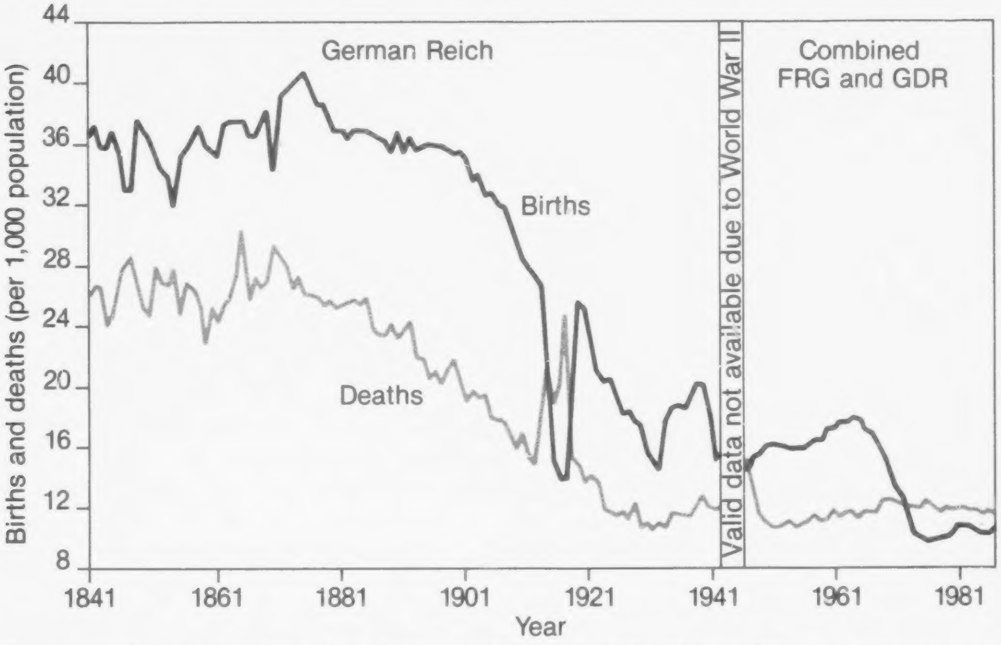
German population increased from 41 million to 56 million between 1871 and 1900, straining the limits of available farmland. Population pressure helped fuel a large-scale emigration of Germans to less-settled regions. From 1871 to 1900, approximately 2.5 million Germans emigrated, and more than 90 percent settled in the United States.[4] Most of the emigrants came from the eastern parts of the German Reich where incomes were low and jobs scarce.

After the turn of the century, rapid industrialization improved Germany's economic situation and made it easier to accommodate a larger population. Outmigration declined even though population growth had accelerated slightly. The number of Germans rose from 56 to 65 million during the first three decades of the 20th century.[5] Population growth rates did not begin a significant decline until after 1925.

German death rates began a rapid descent in the mid-1880s, according to registered statistics available after 1871. Birth rates entered a steep decline after 1900 (see Figure 3). Births continued to exceed deaths after the peak of the transition period. Germany continued to grow through natural increase from 1915 to 1972, except during the two world wars. Since 1972, however, deaths have exceeded births, and the population has declined, except for a few years when net immigration was great enough to offset the excess of deaths over births.

During the first decade of the 20th century, German women gave birth to more than four children each on average, according to demographer Patrick Festy.[6] He found that the transition from high to low fertility began with women born between 1872–1880, and pro-

Figure 3. Historical Trends in Birth and Death Rates, Germany, 1841–1989



Sources: Statistisches Bundesamt: Bevölkering und Wirtschaft, 1872-1972, Wiesbaden; and *Statistische Jahrbücher.*

ceeded quite slowly. Completed fertility first dropped below a three-child average for women born after 1882.

The German experience runs counter to a common explanation of the demographic transition: that a decline in infant mortality motivated couples to reduce their fertility in order to compensate for the increasing number of surviving children. In a detailed analysis of all 71 administrative areas of the German Reich, John Knodel discovered that "the decline in infant mortality could not have been an initiating cause of the fertility decline in most areas," because fertility began to fall before, or at the same time as infant mortality.[7]

With the decline of fertility and mortality, other demographic characteristics also changed in Germany. The average size of households decreased rapidly. In 1900, 44 percent of all households contained five or more members. By 1925, only 33 percent of German households included this many, and by 1950 only 16 percent of households included five or more members.

Marriage patterns also changed. The average age at marriage for single women increased from 24.8 years in 1911 to 26.2 years in 1938. For single men, it rose from 27.4 to 28.8 years of age over the same period. Divorce rates more than quadrupled, from 7.4 divorces per 10,000 married persons in 1890 to 31.1 per 10,000 in 1938.

Declines in fertility and mortality led to a shift from a younger to an older age population structure. In 1871, the age composition of the German population was still typical of a pre-industrial society, or of many less developed countries today (see Figure 4). Some 34 percent of the population was under age 15, 61 percent was age 15–64, and only 4.6 percent of the population was age 65 or older. By 1939, the children's share of the population had declined to 23 percent, the percentage of adults age 15 to 64 had increased to 69 percent of the total, and that of the elderly equaled 7.8 percent.

Social and Economic Background of the Transition

The demographic transition in Germany resulted from a complex pattern of social, economic, and cultural changes that triggered the decline of both mortality and fertility.

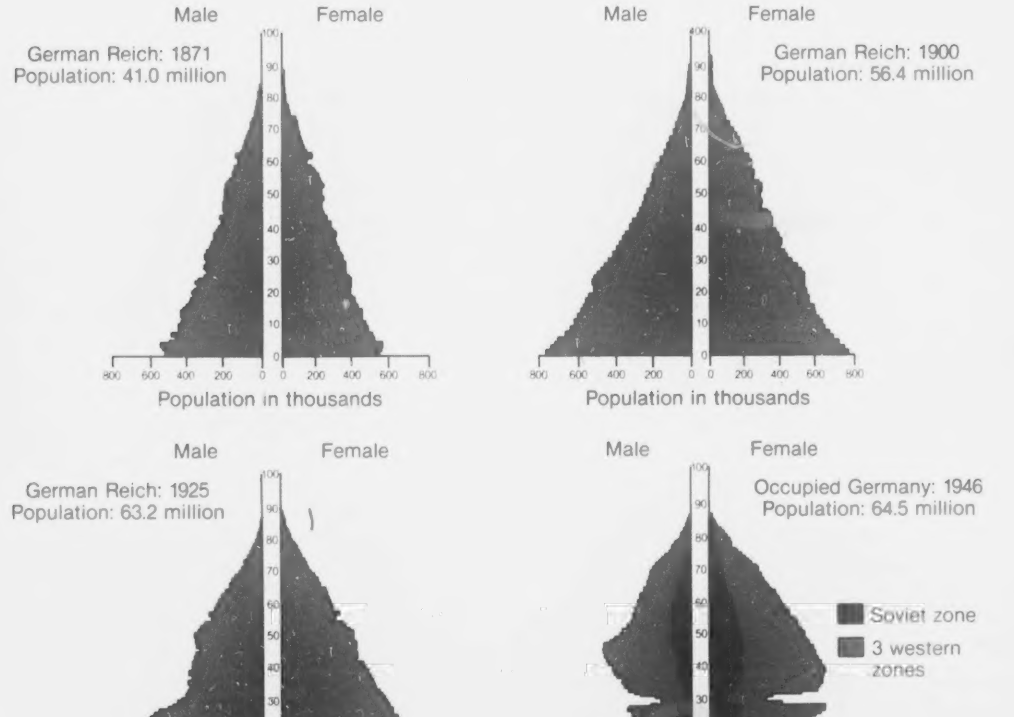
Between 1882 and 1939, the total labor force in the German Reich increased from 17 to some 36 million persons. During the same period the percentage working in agriculture declined from 41 to 18 percent among males and from 45 to 38 percent among females.[8]

Women's lives changed fundamentally during the first decades of the 20th century. No longer were they restricted to the three "K"s: *Kinder, Küche, Kirche,* a well known phrase in German, meaning "children, kitchen, church." More women joined the labor force. The female labor force in Germany grew by 157 percent between 1882 and 1939, while the male labor force increased by 91 percent. The percentage of women 15 to 65 years of age who were employed had risen from 43 to 52 percent.

Many of these changes in women's lives were fueled by new inventions and machines introduced in the late 1800s. Inventions such as the typewriter (mass-production of the "Remington" started in 1873) and the telephone switchboard system (introduced in 1877) created millions of jobs that were filled predominately by women. The emergence of a female labor market weakened the traditional, family-oriented perspective of many women, extending their horizons beyond household and family. This in turn led more women to delay or forgo marriage and childbearing.

At the same time, a major shift in population distribution occurred. The growing industries in urban areas attracted laborers from the countryside. Between 1870 and 1910, the percentage of Germans living in cities or towns with over 2,000 inhabitants increased from 36 to 60 percent. Large metropolitan areas grew up, dominated by the traditional

Figure 4. Germany's Changing Population Pyramid, 1871–1988



Sources: German population censuses; published and unpublished estimates.

capital, Berlin. Berlin grew from some 827,000 to 2.5 million between 1871 and 1900. By 1930, its population had reached 3.7 million.[9]

But the move to the cities signaled more than a local redistribution of the population. A large proportion of Germans had left the closed social world of the village and embraced the pluralistic, stimulating culture of the city. Accompanying this movement was an erosion of the power of the church and an expansion of the role of the state.

In 1872, under the direction of *Reichskanzler* Bismarck, the control of German public schools was wrenched away from the church and given to the state. The state began to devote more funds to improve and expand its system of education. From 1870 to 1890 state expenditures on education and research more than doubled as a result of Bismarck's reforms. Enrollment at German universities soared from 18,000 in 1869 to 40,000 in 1896 and 91,000 in 1925. More German women entered the universities, a consequence of the expansion of female education at lower levels. Less than 1 percent of university students were women in 1907; within 20 years their share exceeded 10 percent.[10]

The secularization of the educational system was only part of a larger restructuring of German society. Civil marriage was introduced, as was legislation that prohibited priests from using the pulpit to agitate on political matters. Compulsory health insurance was established for blue collar workers—the first such program in the world. A pension system was created.

These changes not only deepened the separation between state and church, but hastened the emergence of new secular values and norms. Germans' attitudes toward sexuality, family formation, and childbearing became less traditional and less predictable.

Many of these social and economic changes worked to lower German birth rates. As jobs for women expanded, the years of unpaid labor devoted to raising a large family were seen in a different light. They constituted lost employment opportunities. As Germans moved from the farm to the cities, they no longer needed the type of labor children could provide. Children spent more years in school, increasing the time they remained dependent on their families. The notion that women could limit the number of children they bore gained wider social acceptance. The knowledge and practice of birth control methods expanded. Many parents believed that by having fewer children they could achieve a higher quality of life for themselves and their families.

Declines in Mortality

Unlike Third World countries today, where rapid mortality decline is usually related to vaccination campaigns, expanded use of drugs such as penicillin, and improved medical treatments, the mortality decline in 19th century Germany had little to do with modern medicine. Death rates started to fall decades before these medical interventions became available. The BCG tuberculosis vaccine was only discovered in 1908, penicillin was mass-produced after 1940, and the drugs isoniazid and streptomycin (to treat tuberculosis) were available only after 1951.

The rapid decline of German mortality around the turn of the 20th century was mainly a result of three related factors. These were:

- major improvements in basic sanitary conditions;
- a stabilization of food supply; and
- the development of a few basic medical techniques, such as sterile conditions in maternity wards.

The unruly congestion brought about by the rapid urbanization of Germany hastened these developments. When the population began to concentrate in urban areas, sanitation problems worsened and some diseases became virulent. During the second half of the 19th century, epidemics of cholera and other diseases broke out in several cities, spreading rapidly through the crowded housing quarters. The government was forced to improve the waste disposal systems and the water supply. The availability of clean drinking water in the cities might have been the largest single factor initiating the decline of infant morbidity and mortality.

The Industrial Revolution changed the living conditions in the countryside as well. Despite the fact that the agricultural labor force was shrinking due to migration to the cities, agricultural production increased. Between 1873 and 1912, the production of wheat grew from 2.8 to 4.4 million tons, rye production increased from 7.3 to 11.6 million tons, and potato production more than doubled from 23.6 to 50.2 million tons. While the population of the German Reich grew by 59 percent, from 41.6 to 66.1 million, the production of basic food staples nearly doubled. Germany's food supply expanded during the period of its demographic transition, another striking divergence from the conditions in many Third World countries today.

Regional and Social Differences

In some areas and in some social groups, fertility and mortality remained high until the 1930s. In others, the decline was nearly over by the beginning of the 20th century. Demographic statistics on a national level mask these regional and social differences that are so typical of the German population.

Fertility and mortality decline usually began in large cities, spread to medium and small towns, and then to rural areas. In general, the more wealthy population groups were the first to reduce fertility, while the lower classes, including farm workers and miners, lagged behind. A study based on 1939 census data revealed that fertility had declined first among physicians, university professors, army officers and artists.[11]

Religion was another important factor. The urban Jewish population was the

Box 1. The Dark Chapter: Nazi

There is a chapter in German demography whose pages too many of our countrymen would like to skip: National Socialism and the Holocaust. But this darkest period in German history should never be forgotten, especially not amidst the joy of the reunification and certainly not in a report on German demography.

Germany's demographic history was involved in this tragedy in two ways. First, the population structure of a large part of Europe was dramatically changed as a result of the Holocaust and World War II. Second, the excesses of the Nazi regime in the name of purifying the race cast a heavy shadow over the science of demography in Germany. In the post-war rejection of Nazism, German politicians have been reluctant to propose explicit population policies, lest they be linked to Nazi excesses.

In what is now called the Holocaust, the Nazis systematically tried to eradicate an entire population group, the Jews. Jews all over Germany and German-occupied Europe were pursued and incarcerated. Millions were killed in the gas chambers of German concentration camps at Auschwitz-Birkenau, Maidanek, or Treblinka. In the name of purifying the race, the Nazis also tried to eliminate other religious and ethnic minorities, such as the Roma (the nomadic gypsies), and "undesirables" such as the disabled and homosexuals. The Nazi police relentlessly pursued and prosecuted members of the political opposition in Germany and members of the resistance in occupied countries. The exact numbers will never be known, but according to detailed estimates up to 5.7 million people, mainly Jews from eastern European countries, were killed in the gas chambers of the Third Reich.

Germany

The systematic slaughter of human beings in the concentration camps was only part of the death toll exacted by the National Socialists. The Nazis' attack on Poland (September 1, 1939) triggered a continental war that escalated into a worldwide military conflict in which 53 countries participated.

During World War II some 40 million soldiers lost their lives on battlefields all over the world. Another 15 million civilians were killed. The Soviet Union suffered the largest losses of human life: 20.6 million soldiers and 7 million civilians.[1]

In the 1920s and 1930s, German demography—markedly different from the present-day science—was misused by the Nazis and lent ideological support to the rise of fascism. At the beginning of the 20th century, Social Darwinism was widespread in Europe. This popular philosophy—which expanded the evolutionary process of the "survival of the fittest" to humans—had many roots. One was J.A. Gobineau's pseudo-scientific theory on the "inequality of the human races," which was spread throughout 19th century Europe by H. St. Chamberlain, founder of the Eugenics Society.

Some German demographers of the period used these ideas to establish an academic discipline that blatantly propagated racism. They called it *Rassenhygiene*. Biological heritage, they argued, determines the quality of humans and their value for society. They distinguished "valuable" from "useless" individuals and races. Natural selection of the strongest races was seen to be the driving force of history. It was a short step from this "theory" to the contemptuous program of euthanasia that would cleanse the German "blood" of "cripples" and "useless human beings" (*Programm zur Vernichtung unwerten Lebens*). Legitimized by statistical studies prepared by German demographers, the Nazis killed thousands of individuals with physical or mental disabilities or with hereditary diseases before the churches could stop the program.

At the same time, the "racially pure" Germans were encouraged to have large families. Specific policies, including marriage loans and child-allowances, were instituted by the National Socialists to increase the birth rate among ethnic Germans. Motherhood was touted as a patriotic duty as well as a woman's highest goal. Access to contraceptives and abortion was severely curtailed.[2]

These demographers dreamed the evil dream of Superior Men (*Herrenmenschen*) who had to "purify their blood" from the impure heritage of slaves *(Untermenschen)*.[3] In time, their names will be forgotten in our discipline, but their dangerous ideology should not be, lest it re-emerge.

References

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first to experience a rapid decline of fertility, followed by the Protestants. Among Catholics, who were more likely to live in the mostly rural south of Germany, fertility decline came last. Their birth rates remained above those of Protestants and Jews for decades. Eventually, all religious and social groups and all regions adopted modern patterns of fertility, mortality, and nuptiality.

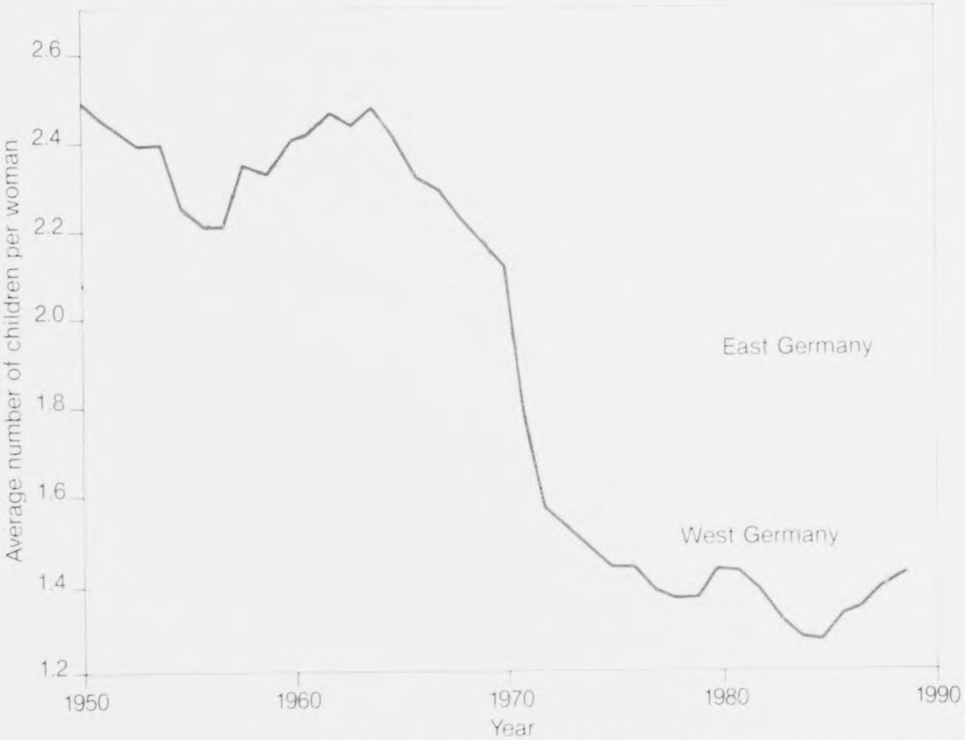
By the late 1920s, the birth rate was falling so fast that demographers began to project eventual population decline. The growing interest in eugenics (the science of improving human genetic stock) was intensified by the idea that certain population groups might decline. On the eve of World War II, (see Box 1), many Germans and other Europeans already were beginning to worry about negative population growth.

Recent Demographic Trends: 1946–1990

Fertility

As in many other European countries, Germany experienced a baby boom during the 1960s, followed by a baby bust. Despite the difference in political and economic systems, the baby boom was nearly identical in its timing and level of fertility in both Germanies. As in most countries, a spurt in birth rates right after World War II was followed by a sustained period of high fertility. The baby boom in Germany, as in other countries, was in part caused by an increase in marriage. Greater proportions of women were getting married and at younger ages.

Figure 5. Total Fertility Rates in East and West Germany, 1950–1989



Sources: (FRG) Statistisches Bundesamt, Bevölkerung und Erwerbstätigkeit, Reihe 1, Gebiet und Bevölkerung 1988 (Stuttgart: Metzler und Poeschel): p. 86; (GDR) Statistisches Jahrbuch der Deutschen Demokratischen Republik (Berlin: Staatsverlag) various issues; and authors' calculations.

Box 2. East German Policies to Encourage Childbearing

A number of European countries with below-replacement fertility have implemented policies that—directly or indirectly—are aimed at increasing the national birth rate. The success rate has been poor. In the German Democratic Republic, however, the effect of pronatalist policies on national fertility rates is clearly visible.

In May 1976, the East German government introduced a set of policy measures designed to boost the fertility rate, which had slipped below replacement after the liberalization of abortion in 1972. The most important provisions to encourage couples to have more children were:

- Lengthening paid maternity leave from 18 to 26 weeks, and
- Instituting a one-year paid maternity leave for mothers with two or more children.

These benefits were not extraordinary by European standards. But they were well publicized in the GDR and apparently received broad public approval. The benefits package was viewed as a major improvement in the lives of women with children.

The effects of social policies often defy quantification. How can the effects of the policy be separated from other factors, such as economic recession or political instability? But a recent study clearly demonstrates the fertility-boosting effect of the East German policies after 1976, and finds that the pronatalist measures increased fertility in the GDR by about 20 percent.[1]

Closer examination of East German fertility over the past two decades reveals more specific effects of the pronatalist measures. Many aspects of the policies favored women with larger families—two or more children. In fact, after 1982, the probability of having second and third births was up by 30 percent, and even rose above the relatively high pre-1970 birth rates. The probability of having a first birth initially increased, but then fell below its previous level. The net effect of the policies was to significantly increase fertility in the GDR. The laws favored women who already had children, encouraging them to go ahead and have another one or two, but had no effect on childless women. Levels of childlessness in the GDR were unchanged.

Reference

1. Thomas Büttner and Wolfgang Lutz, "Estimating Fertility Responses to Policy Measures in the German Democratic Republic," *Population and Development Review* Vol. 16, No. 3 (1990) pp. 539–555.

The steep decline in fertility rates between 1967 and 1974 also occurred simultaneously in East and West Germany. After birth rates peaked in the mid-1960s, they fell by about 40 percent in only seven years. The decline was steeper in both German states than in most other European countries.

After 1974, birth rates in the two Germanies began to diverge, probably as a result of explicit policies instituted by the East German government to encourage couples to have more children (see Box 2). Fertility continued to decline in West Germany, however. Between 1975 and 1985, women in East Germany had on average almost half a child more than women in West Germany. In 1985, the West German TFR hit an historic low, slipping just below 1.3 children per woman (see Figure 5). It was then the lowest national TFR ever recorded in peacetime, generating much international attention and musings about the eventual disappearance of the German population.

In the late 1980s, however, the fertility gap between the two Germanies had begun to narrow, and by 1989 both populations recorded TFRs of about 1.5 children per woman. With the unification of the two countries in 1990, this strange divergence in TFRs may remain only an intriguing historical episode.

Age Patterns of Fertility

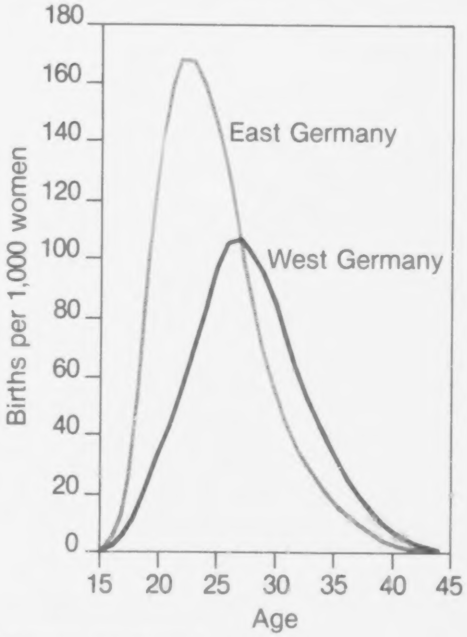
Even in the 1950s, East German women tended to have children at younger ages than their West German cousins. By 1985 two significantly different age patterns of family formation had evolved (see Figure 6). In East Germany, childbearing was increasingly concentrated in the late teens and early 20s. In West Germany, it had shifted toward the older ages, much as it had in the United States and in other European countries.[12]

These distinct patterns of fertility apparently grew out of the different social and economic conditions of East and West Germany. In the former GDR, almost all women combined motherhood and employment. Both motherhood and labor force participation were considered obligatory. In the United States and in other European countries, women often delay childbearing to establish a career. In the GDR, however, it was easier for women to combine these competing goals at younger ages, before assuming more demanding professional responsibilities. Furthermore, career advancement opportunities were limited in East Germany, and young women had little to gain by delaying motherhood. The dense network of inexpensive child-care centers, comprehensive maternity benefits, and other services helped women combine raising young children with working.

Labor force statistics for women in the two countries lend credence to this explanation. East German women enter the labor force at a fairly young age and do not exit during the prime childbearing years. In fact, a greater percentage of East German women at all adult ages are employed. Overall, 83 percent of East German women age 15 to 59 work outside the home, compared to 50 percent of West German women. Most West German women work during their early 20s, but a large percentage leave the work force during their young adult ages, presumably to raise children. They re-enter the job market as they reach their 30s and early 40s, when their children would be more self-sufficient.[13]

Beginning motherhood at a younger rather than older age was socially preferred in East Germany. Attitude surveys in the 1980s found that having children, along with professional work, received the highest rating among a large number of values. Some analysts think that by having children at a very young age, young East Germans were searching for privacy and expressing their individual-

Figure 6. Age-Specific Fertility Rates, East and West Germany, 1985



Sources: see Figure 5.

ism as a reaction against an increasingly repressive political environment.

Childlessness

Even before 1974, when birth rates in the two Germanies were almost identical, the average East and West German families were very different. In East Germany almost every woman had at least one child, whereas in West Germay, a high percentage of women were childless. Overall rates were similar in the early 1970s because West German women who did have children had a larger number of them. Since then the differences in family types have only widened.

In 1981, only 11 percent of all East German women age 45 were childless. Even lower percentages of younger women were childless: only 7 percent of the women born in 1951, for example. An estimated 10 percent of East German women will remain childless throughout their lives.[14]

The percentage of West German couples still childless after 11 to 15 years of marriage increased between 1970 and 1980, from 11 percent to 15 percent.[15] The figure may have reached 19 percent by 1986. During the same period, marriage rates declined; an estimated 25 percent of all women will remain unmarried, under current trends. Because the proportion of children born out of wedlock has remained below 10 percent in West Germany, an estimated 35 to 40 percent of all women will remain childless, if current patterns continue.

Out-of-Wedlock Births

While the proportion of births to unmarried women remained low in the West, about one-third of East German births occurred outside of marriage in the late

East Foto

The East German government built low-cost child-care centers to encourage women to have more children.

1980s. There are obvious reasons for this discrepancy: the support systems for younger single mothers were better in the GDR, a consequence of the pronatalist policies instituted in the 1970s. It was quite common, and socially acceptable, for a young East German woman to bear a child while a student and unmarried. This behavior was reflected in the younger mean age for childbearing and the lower proportion childless discussed above. Unmarried mothers in West Germany, in contrast, do not enjoy wide social acceptance and suffer from a lack of child-care facilities.

Will these differences persist after unification? If the differences indeed grew out of political systems, it stands to reason that the East Germans will come to act more like their western cousins. However, the more liberal attitudes toward out-of-wedlock childbearing—already more accepted in the rest of Europe—could disrupt the more traditional West German patterns of family formation.

Abortion

Abortion is one of the most contentious issues to emerge during the unification process. Until unification, the states in the former GDR usually allowed any woman an abortion within the first 12 weeks of pregnancy. Abortion law in the FRG is more restrictive: women seeking an abortion have to face a commission that decides the issue on the basis of certain medical and social indications. At the time of reunification, neither side was comfortable adopting the laws of the other.

Conceding the need to craft a law acceptable to the majority of both East and West Germans, the government has given the new parliament until 1992 to create the new legislation. Until new legislation is enacted, the present laws will be enforced in the respective territories. But unification has already expanded the availability of abortion: west German women may now go to eastern Germany for an abortion.

In the late 1980s, the number of registered abortions was about the same in East and West Germany, despite the large difference in population size. Annual registered abortions ranged between 80,000 and 90,000 in both countries. In 1989, the official rate was 371 abortions per 1,000 births in the former GDR and 110 in the FRG.[16] However, it is widely assumed that a large proportion of abortions in the FRG are never registered. Taking non-registered abortions into account, the abortion rates may be similar in the two Germanies.

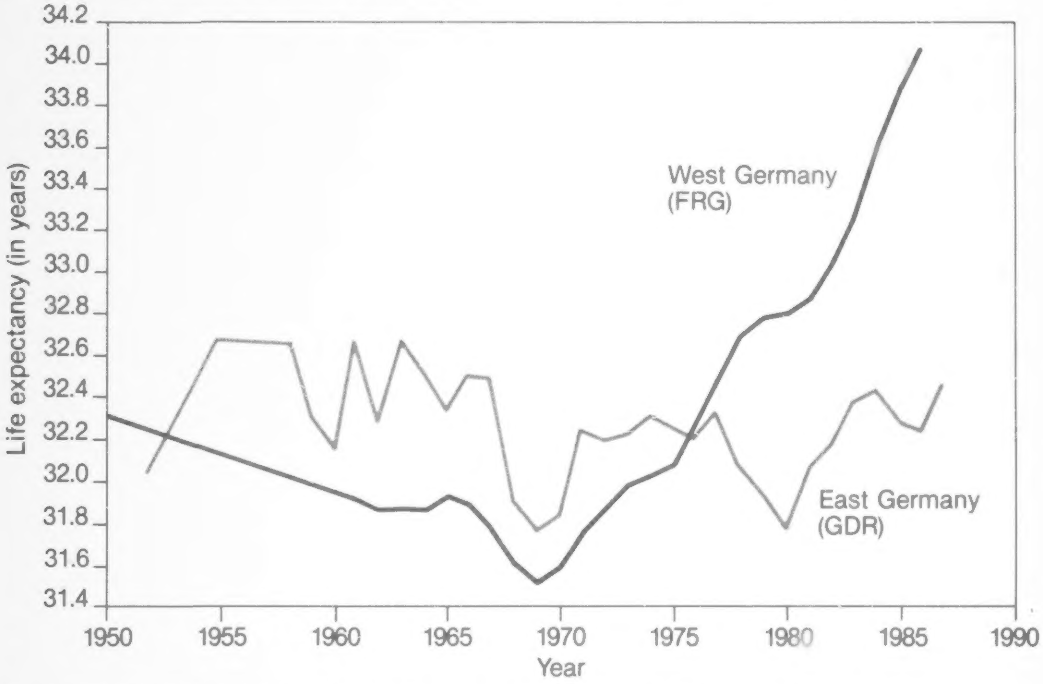
Gains in Life Expectancy

In the 45 years since the end of World War II, the average life expectancy in both parts of Germany increased remarkably, as it did in most European countries. After 1970, however, the rate of improvement in life expectancy slowed in East Germany, while it accelerated in the West. The German situation reflected a growing gap in mortality rates between eastern and western European countries.[17]

Average life expectancy rose further in West than in East Germany, and was higher for women than for men. Between 1950 and 1986, life expectancy at birth in the west increased by more than 7 years for men and by almost 10 years for women. In East Germany, it rose by 5.6 years for men and 7.5 years for women. The gap between East and West German life expectancies increased so much during this postwar period that by 1986 West German men lived 2.3 years longer than East German men and West German women lived an average 2.9 years longer.

Infant mortality is a sensitive indicator of a country's standard of living, especially the effectiveness of medical services. Immediately after World War II, the infant mortality rate was 26 percent higher in East than in West Germany: 131.4 infant deaths per 1,000 live births compared with 97.1 deaths per 1,000 births. Over the following 20 years, how-

Figure 7. Life Expectancy at Age 40, East and West German Men, 1950–1987



Source: (FRG) Statistisches Jahrbuch für die Bundesrepublik Deutschland (Stuttgart: Metzler-Poeschel) various issues; (GDR) Statistisches Jahrbuch der Deutschen Demokratischen Republik (Berlin: Staatsverlag der DDR) various issues.

ever, infant mortality in East Germany declined faster than, and for a short period during the early 1970s it even fell below, the West German rate. In 1989, however, just 8 of every 1,000 newborns died within their first year of life in both parts of Germany, putting Germany in a middle-range position among industrialized countries.

Most of the divergence in life expectancy arises from higher death rates among adults, particularly among men (see Figure 7) rather than differences in infant and childhood mortality. Much of this difference can be tied to specific causes of death in the two countries (see Table 3). In East Germany, accidents and diseases like diabetes and circulatory problems that can be ameliorated through diet, life style, or improved safety were dominant causes of death. Death rates from cancer were quite similar in both countries.

Diseases of the circulatory system, the major cause of death in both countries, claimed only two-thirds the proportion of West German as East German lives in 1988. The death rate from diabetes in the FRG was less than half the level in East Germany, probably reflecting the same diet and life style factors responsible for the lower mortality from circulatory disease. Accidental deaths (except from automobiles) were significantly lower in West Germany. Although deaths from accidents represent a small share of all deaths, they are concentrated in the younger ages, making the effect on potential years of life lost quite significant.

Table 3. Major Causes of Death in East and West Germany, 1988

Cause of death	Cause-specific death rates (deaths per 100,000 population)					
	East Germany			West Germany		
	Total	Males	Females	Total	Males	Females
Circulatory diseases	839.5	711.4	957.8	561.0	509.6	608.6
Cancer/Neoplasms	234.4	248.0	221.9	272.7	282.8	263.3
Respiratory diseases	79.5	96.7	63.6	65.0	77.8	53.1
Accidents	45.0	52.5	38.0	32.0	36.9	27.4
Diabetes mellitus	40.2	26.9	52.5	18.6	13.0	23.7

Standardized on 1987 FRG population

Source: Authors' calculations from published statistics.

Marriage and Divorce

Since 1972 West Germany has experienced not only a birth deficit, but also a "marriage deficit." Marriage dissolutions (by divorce, death of a spouse, or other reasons) have outnumbered weddings. In 1988, 398,000 West Germans got married, but 415,000 marriages were dissolved. Marriage dissolutions have outnumbered weddings in East Germany, too, for most of the 1970s and 1980s.

Although both Germanies experienced a marriage deficit, marriage patterns were quite different in the two countries. East Germans not only are more likely to marry than West Germans, but they do so at much younger ages. At age 25, East German men are two and a half times more likely to be married as West German men.

What caused this difference in marriage patterns? Have traditional family-oriented values persisted much longer in East Germany, or has marriage behavior been a reflection of social and economic conditions in both states?

One reason for higher nuptiality in the former German Democratic Republic could be its family-oriented social policy that rewards young couples who marry and have children.[18] The policy measures ranged from direct and indirect financial benefits and legal regulations (such as maternity leave) to the provision of housing and low-cost child care. Some of these incentives were so strong that one might call them "sanctions" against remaining single or childless. Housing was scarce in the GDR. and it was allotted by the government according to a preference system. Under East German laws, couples had the best chance to get a flat of their own if they were married and had a child.

Certain marriage credits were given only to those under age 26 (or age 30 after 1986), encouraging couples to marry young. There is statistical evidence that these government policies did influence marriage behavior in East Germany. Before these policies were implemented in 1972, marriage rates by age formed a smooth curve that peaked at age 21 for women and 24 for men. After that time, rates at age 25 shot up, especially for men, and then fell off dramatically at age 26 (see Figure 8), clearly reflecting the age limit for receiving the housing credit.

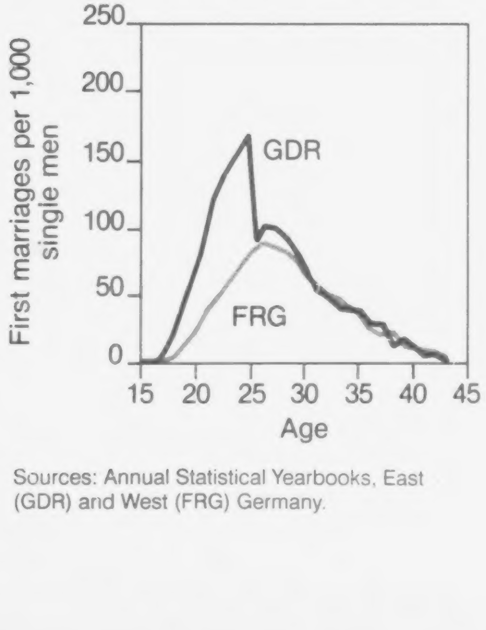
Children and Divorce

In both parts of Germany, divorces increased after the 1950s, especially during the early 1970s. Between 1977 and 1980, divorce rates in West Germany dropped precipitously to about one-third the previous level. This decline proved to be the temporary result of reforms of the divorce laws, rather than an embrace of marriage. The divorce rate rose back to previous levels during the 1980s.

Increasing divorce rates and a growing number of single-parent families in Germany have serious consequences for the living conditions of children. In West Germany, where over 90 percent of all births are still within marriages, an estimated one-half of the children already born will experience the divorce or separation of their parents. Most of these children will live with their mothers, either in a one-parent family* or within a new step-family.

In 1988 there were 6.9 million families with children under age 18 in West Germany.[19] Some 86 percent of children were living within a marriage, but not necessarily the one in which they were born. Children living in a single-parent family usually stay with their mother, but approximately 14 percent of single-parent families with children under age 18 were headed by men in 1988. In contrast, some 75 percent of U.S. children lived in a married-couple family in 1989.

Figure 8. First Marriage Rates by Age, East and West German Men, 1985



Sources: Annual Statistical Yearbooks, East (GDR) and West (FRG) Germany.

Shrinking Household Size

As in the United States and other European countries, German households contain fewer and fewer people. Nearly two-thirds of the 27 million households enumerated in the annual West German micro-census in 1987 included only one or two persons.

At the beginning of the 20th century, households of only one person were rare in Germany. Between 1925 and 1950, however, the proportion of one-person households nearly tripled, from 7 to 19 percent. During the next 40 years the number of one-person households increased to 35 percent of all households in West Germany and to 27 percent of households in the former GDR. This tremendous increase resulted from two independent developments—the aging of the population and the delay (or rejection) of marriage among young adults.

Increasing life expectancy has created a rapidly-growing group of single households, especially among elderly women. According to a 1987 survey, there were 2.4 million individuals age 70 to 74 in West Germany (1.5 million women and 0.9 million men). Because women live longer than men, and because they tend to marry men several years older than themselves, women are much more likely to experience the death of a spouse. Only 34 percent of elderly women, but 81 percent of elderly men, lived together with their spouse in a household in 1987. Of all women age 70 to 74, 54 percent lived in a one-person household. As in the United States, the elderly appear to prefer to live independently rather than move in with children. Only 12 percent of women age 70 to 74 lived with their adult children.

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*We use the term one-parent family to mean one adult living together with a child (or children). The adult usually is a parent of the child, but children may also live with other relatives such as a grandmother or aunt.

Migration of Ethnic Germans

During the turbulent years of World War II, millions of Europeans were uprooted from their homes and forced to move to other countries. In Nazi Germany, massive relocations of residents were used as a strategic political device even before the war to implement the "Germanization of the East."

After the Nazi surrender in May 1945, control of the war-devastated country was divided among the four major victors: the United Kingdom, France, the United States, and the Soviet Union. At the Potsdam Conference later that year, these powers also changed the face of eastern Europe by transferring former German territory east of the Oder and Neisse Rivers to Poland and the Soviet Union; Czechoslovakia regained most of its area taken over by Nazi Germany; and Hungary reverted to its prewar boundaries.

Following the Potsdam Conference, millions of Germans were moved back to Germany from the former eastern territories. In the bitter postwar climate, all German-speaking residents were forcibly expelled from Czechoslovakia. The most massive relocation of Germans occurred after Poland and the Soviet Union gained control of the territory east of the Oder and Neisse Rivers. In 1946, the first German postwar census found that 9.7 million residents, about 16 percent of the total German population, had been moved out of this disputed territory after the war. Between 1946 and 1950, another 12 million Germans were forced to move west of the Oder and Neisse Rivers.

In addition to the massive influx of Germans from the former German territories, there were other significant movements into and out of Germany just after the war. Prisoners of war, displaced persons, and others migrated from Germany back to their home countries.

At the same time, there was a reshuffling of residents between the occupied zones of Germany. Negotiations to create a unified Germany had failed. The fundamental political and economic differences between the Soviet Union and the Western Allies were already being reflected in their respective zones. Political tensions were heightened and conflicts arose, not only between the superpowers, but between eastern and western parts of occupied Germany. Germans began to realize that, by virtue of where they lived, they were choosing one system over another. Movement across the border increased, and this migration stream, even when its aim was primarily reuniting families, assumed a political significance that continued until 1990.

In 1949, the German territory occupied by the Western Allies united to form the Federal Republic of Germany. One month later, the Soviet-occupied zone was proclaimed the German Democratic Republic. After the establishment of the FRG and GDR, the primary migratory movement flowed from the east to the west. Ethnic Germans and ex-patriots continued to enter West Germany from eastern and southern Europe.

Between 1950 and 1960, roughly 200,000 people each year left the GDR to re-settle in the FRG. These movements were illegal under East German law but they were easily accomplished because the borders were loosely controlled, especially in Berlin. Although slipping from East to West Germany was relatively easy, bringing along household effects was not. Many sacrificed all their personal property to move to the West.

Significant losses of population through migration to the West served to destablize the GDR. Migration ebbed and flowed as the East German system underwent various phases of its transformation to communism. Between 1950 and 1961, some 2.6 million people migrated from East to West Germany, a tremendous number considering that the total East German population was 17 million at that time.

In August 1961, the government of the GDR erected a concrete wall along the

Table 4. Immigration to West Germany, 1950–1989

	Population in thousands					
Country	1950–59	1960–69	1970–79	1980–88	1950–88	1989
Total	1,960	2,493	1,828	1,371	7,652	na
Germans	2,643	840	504	811	4,798	721
East Germany	2,203	618	149	204	3,174	344
Poland	292	111	203	382	988	250
USSR	14	9	57	78	157	98
Czechoslovakia	20	56	12	11	99	2
Romania	3	16	71	128	219	23
Other	110	30	12	8	160	4
Non-Germans	683	1,653	1,324	561	2,855	na

Source: Bundesausgleichsamt, Aufnahmeverfahren, various issues.

line separating East and West Berlin. The wall was virtually impenetrable except at gates protected by vigilant military guards. It became nearly impossible to cross the border without official papers. The number of people migrating from East to West Germany decreased drastically (see Table 4). At the same time, however, moving across the border for "family reunification" became legal, providing a limited number of East Germans the opportunity to migrate legally. Between 1962 and 1988, 560,000 people moved from the GDR to the FRG, 68 percent with official papers.

By the mid-1980s, however, pressure to remove the strict limits on movement across the border had become overwhelming. The East-to-West flow increased again in reaction to internal political problems, agreements between the East and West German governments, and a new openness encouraged by reforms introduced by the Soviet Union's leader, Mikhail Gorbachev.

The most spectacular migration peak occurred in 1989, when 344,000 people, 2 percent of the East German population and 3 percent of the labor force, moved to West Germany. The exodus hit some sections of the economy especially hard, as discussed below. The steady outflow of people was a major factor in the political process that opened the Berlin Wall on November 9, 1989, and resulted in the dissolution of the German Democratic Republic on October 3, 1990.

Ethnic Germans from other parts of eastern and southeastern Europe also continued to flow into West Germany during the post-war years. Between 1950 and 1988, 2 million Germans immigrated to the Federal Republic from these countries, 6[illegible] percent of them from Poland. Coinciding with the movement from East to West Germany, a tremendous influx of German immigrants occurred in the second half of the 1980s. In 1989 alone, approximately 377,000 ethnic Germans arrived in the FRG from eastern and southeastern European countries other than the former GDP.

Non-German Residents

West Germany's economic strength and political system also attracted non-German immigrants and political refugees.

In sum, from 1950 to 1988, West Germany gained approximately 7.7 million residents through immigration, 38 percent of whom were of non-German ancestry (see Figure 9). Most were attracted by the chance of obtaining jobs at relatively good wages. The movement of guestworkers into East Germany, however, was minor until the 1980s, and the number of refugees enter-

Table 5. Foreign Workers in East and West Germany, 1989

Country of origin	Foreign workers (in thousands)
East Germany	
Poland	7.0
Vietnam	60.0
Mozambique	16.0
Angola	1.0
Cuba	9.0
China	1.0
North Korea	0.6
Total	94.6
West Germany	
European Community	497.3
Italy	178.9
Greece	101.7
Spain	61.6
France	41.3
UK	36.5
Other	77.3
Rest of Europe	1,023.4
Turkey	561.8
Yugoslavia	300.9
Austria	88.7
Poland	25.4
Czechoslovakia	11.6
Other	35.0
Africa	40.4
Americas	34.8
Asia	73.7
Other	19.7
Total	1,689.3

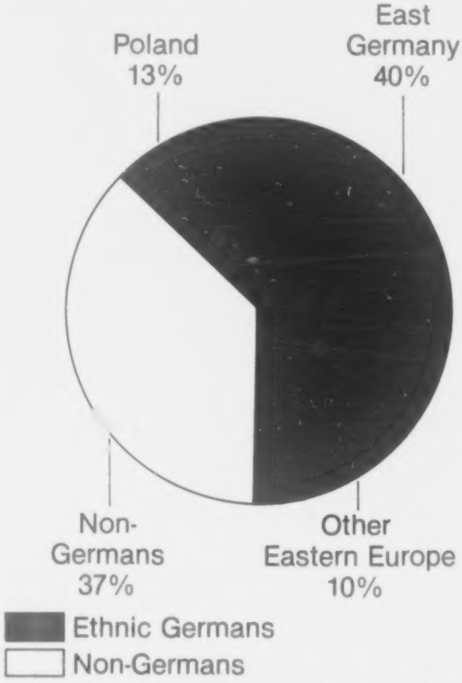
Source: Official published statistics.

ing East Germany was never significant.

The east-west migration of ethnic Germans and other Europeans was a consequence of the war, but the immigration of guestworkers was a prime example of a wealthy society attracting people from poor countries. The major sources of guestworkers for West Germany were Turkey, Yugoslavia, and Italy, while the socialist nations of Vietnam and Mozambique were the primary sources for foreign workers for East Germany (see Table 5).

The number of foreigners returning to their home countries has fluctuated with the economic or political climate. In the 1950s, there was a net outflow of almost 700,000 non-Germans from West Germany. In every subsequent decade, except for a few years in the mid-1970s and mid-1980s, there were substantial net inflows. The influx of guestworkers was greatest during the 1960s when some 1.7 million entered the FRG, partly to fill the gaps in the labor market created by the decline of immigrants from the east after the construction of the Berlin Wall. The number of guestworkers entering the FRG declined markedly during the 1980s, largely because the recession dampened the demand for their labor.

Figure 9. Origin of Immigrants to West Germany, 1950–1988



Total net immigration = 7,883,000

Sources: See Table 4.

German Information Center

U-Bhf. Kottbusser Tor

Non-German residents, like these Turkish women, are not readily assimilated into German society. Germany is officially a "non-immigration" country despite its 5 million foreign residents.

In 1989, some 5 million foreigners who were not of German descent resided in West Germany, accounting for nearly 8 percent of the total population. The foreign population, which includes the German-born children of immigrants, is much younger than the ethnic German population. About 25 percent were under age 18 and only 2.8 percent were over age 65, compared to only 18 percent of the German population under age 18 and 16 percent over age 65. The population of foreigners is growing through natural increase, another departure from German demographic patterns. In 1989, births exceeded deaths among this group by 71,000, while among Germans, deaths exceeded births by some 87,000. The young age structure and higher fertility among the foreign population means that it will continue to grow relative to the larger German base.[20] East Germany, in contrast, contained only about 190,000 foreigners on the eve of unification. Most were young males who were not expected to become permanent residents.

The ethnic and national origins of West Germany's foreign population have shifted since the height of the guest-worker movement in the 1960s. In 1970, Italians accounted for 20 percent, and Greeks 12 percent, of the foreigners, but many of these immigrants returned to their home countries during the sharp economic downturns in the early 1970s. Labor agreements with Turkey and Yugoslavia during the 1970s and 1980s brought thousands of labor migrants from these countries, many of whom eventually brought their families. In 1989, 33 percent of the non-German population was Turkish, 13 percent was Yugoslav, and 11 percent was Italian.[21] While the presence of large numbers of non-German-speaking foreigners (and

Box 3. Foreigners in Germany: Guestworkers or Citizens?

Importing foreign workers is nothing new to the Germans: a 1907 survey counted 800,000 foreign workers in Germany, about 1.5 percent of the total population. But the growing numbers of workers in Germany over the past three decades, nearly one-half from non-European countries, have given the issue of foreign labor a new significance in the postwar era.

The issue raises many sensitive questions. Should foreign workers receive the same rights and privileges as citizens? Should they be allowed to bring families, promoting the establishment of permanent communities? Are Germans ignoring the inevitable by pretending that guestworkers are temporary residents? One fact appears clear, however; the foreigners—with their different cultures, languages, and lifestyles—were not always welcomed by either the East or West Germans. As a well-known saying puts it: "Workers were expected, but human beings arrived."

Despite the related social problems, foreign workers are needed. Both East and West Germany have suffered serious labor shortages since World War II, although for somewhat different reasons. In the Federal Republic of Germany, a post-war economic boom, a veritable "economic miracle," created a high demand for labor. The supply of West Germans of working age had been decimated by heavy war casualties. The low wartime fertility meant that few Germans were entering working age during the 1960s and 1970s. Even the postwar baby boom did not produce a large enough pool of potential workers to satisfy the growing need for labor.

East Germany also suffered heavy war casualties and low post-war birth rates. But the labor force of East Germany was further depleted by the millions of young adults who emigrated to the West. Also, the centrally planned economy was highly inefficient, squandering the scarce human resources.

Both German states encouraged the immigration of workers from abroad, although the policies to achieve this differed sharply. In West Germany, policies regarding foreign laborers were discussed openly and often crafted by elected officials, although they were extremely controversial. In East Germany, the guestworker issue received little public attention until the end of the 1980s despite the presence of nearly 100,000 foreign workers, primarily Asians and Africans. Admitting the need to import labor was embarrassing to the East German government which had officially solved its labor shortage through "socialist rationalization." According to the government, these foreigners had come to take advantage of generous training opportunities. This was partially true initially, but foreigners increasingly were used to fill the growing gaps in the East German labor force. Some industries relied heavily on foreign workers during the 1980s: laborers from Mozambique worked in open lignite mines, Vietnamese were employed in textile industries, and Cubans and Angolans worked in automobile factories.

Foreigners in East Germany were governed by restrictive agreements. Only single individuals could come, no families. Women who became pregnant were sent home. Vietnamese workers were allowed a home country visit for only two months within a five-year period. Only a limited number of goods could be sent home, a severe restriction because their earnings in East German Marks were essentially worthless outside the country. Vietnamese workers, for instance, were allowed to take out only five bicycles, two mopeds, and two sewing machines.

German unification has already altered the status of these foreign workers in East Germany. Hired to work in a now-defunct centrally planned economy through agreements with the former GDR, their legal position is tenuous. With growing unemployment within eastern Germany, many foreign workers have been dismissed before the termination of their contracts. About 10,000 to 12,000 foreign workers in East Germany intend to live there permanently, or at least for the present. Some have tried to gain refugee status and seek political asylum. The rest either have already returned or will return in the near future.

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A foreign worker assembles BMW automobile parts in a West German factory.

There has always been subtle discrimination against foreigners, but in the political and economic unrest leading up to unification, public resentment has become more open and virulent, particularly in East Germany. The absence of public information and discussion about the foreigners in the former GDR had fueled unfounded fears and misunderstandings. And, after unification, foreign workers suddenly became competitors for jobs sought by East Germans.

Aliens in West Germany occupy a precarious legal status that will extend to the foreigners in East Germany. There are numerous obstacles for obtaining citizenship or even permanent residency, and the regulations are likely to change further. In 1990, foreigners had to prove legal residence in West Germany for eight years before they were eligible for citizenship. They can be deported for a variety of reasons, their right to unemployment compensation is unevenly protected, and the rules governing the rights of workers' family members have fluctuated radically over the past four decades. Their children too often face failure in German schools.

Discrimination in housing, wages, and hiring has long plagued foreigners in West Germany. In some communities discrimination has been backed up by laws restricting the rights of non-Germans. Some political groups have worked to improve the lot of foreigners in recent decades through federal legislation, but economic uncertainty in the future could reverse some of these gains.

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in the case of the Turks, non-Christians) has caused social and political problems for West Germans (see Box 3), it has also injected a cultural diversity that may revitalize the country.

The Unexpected Unification of Germany

To help understand the demography of a united Germany it is useful to recall how unification came about. The "New Superpower," as it has been termed in the media[22] did not emerge from ultranationalistic enthusiasm and greedy ambitions that characterized the dark chapters of Germany's past. While unification was born out of sheer economic necessity, a demographic phenomenon, migration, triggered it. In early 1989 the wall between the two German states, the foundation of artificial stability in East Germany, began to crumble. For the preceding two and a half decades, barbed wire, automatic weapons, and mine fields had kept East Germans from moving freely in their country. But in the late 1980s, Hungary started to tear down its "iron fence" with Austria, allowing easier border crossings between those two countries. A few hundred East Germans on vacation in Hungary seized this opportunity to flee to the West.

The news spread like a brushfire in East Germany. During August 1989, thousands of East Germans traveled to Hungary. From there some 5,000 a week illegally crossed the border to Austria while Hungarian border guards looked the other way. Tens of thousands more East Germans were on their way to Hungary. On September 10th, Hungary officially opened its border to Austria. During the following week, some 51,500 East Germans emigrated to the West. It was the largest single exodus since the building of the Berlin Wall in 1961. Thousands of Trabis, the legendary East German cars, crept into Austria, passed through Vienna and jammed the West-Autobahn highway into the south of Germany. A new smell filled the air, the exhaust of the Trabi's old fashioned two-stroke engines. People in Austria could *smell* the onset of German unification.

Public protest spread throughout East Germany beginning with mass demonstrations in Leipzig. Thousands protested against the regime in what were called "Monday demonstrations," and ever-increasing numbers left their homes and jobs and headed for Hungary. The East German economy began to feel the drain of labor.

Would-be emigrants crowded into West German embassies in Warsaw and Prague. When they finally were permitted safe passage to West Germany, it became clear that the East German government had lost authority over its citizens. On October 18th, Erich Honecker, secretary-general of the Communist Party and "strong man" of the GDR, resigned.

On November 9th, Honecker's successor, Egon Krenz opened the gates to the Berlin Wall and the entire world witnessed an outburst of jubilation. Thousands of Germans from East and West furiously attacked this inhuman structure, some with hammers and crowbars, others with their bare hands. Television reports showed the world pictures of East Germans squeezing themselves through holes they had knocked into the wall. Many were able to embrace their relatives for the first time. No one could misunderstand the meaning of this event. A people had won a basic human right: the freedom to move.

The bold decision of Krenz seemed to stabilize the regime for a while. But it was the calm before the storm. During the next few weeks millions of Germans visited relatives in the West and learned that life outside the GDR was different from what they had been told by their government. Many East Germans felt betrayed. Television shots of ostentatious wealth accumulated by party leaders and a succession of revelations about the unsavory methods of the East

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The Wall separating East and West Berlin is destroyed, 28 years after its construction.

German secret police (the STASI), further eroded their loyalty. They demanded true democracy and a better standard of living. And, from within the masses now marching in Leipzig every Monday some groups chanted the slogan "*Wir sind das Volk*" (We are the people), which soon evolved to "*Wir sind ein Volk*" (We are one people).

On December 3, 1989, Hans Modrow took over as prime minister and announced free elections for May 1990. Modrow struggled to save the country from a complete economic breakdown. But too many people had already given up. Between October and December 1989, some 350,000 East Germans migrated to the West. During the first two months of 1990 another 120,000 fled from the GDR.

The 1989 emigration alone cost the East German labor force about 250,000 employees, roughly 3 percent of the total. Some branches of the economy suffered serious labor losses. The building trades lost some 5,000 workers, about 8 to 9 percent of their work force. Some 7,000 health care workers, including an estimated 11 percent of East Germany's physicians, left for the West. Some East German hospitals were forced to close when complete medical teams left for the West.

In some areas of the GDR, the very infrastructure seemed on the verge of collapse. This ever-growing stream of emigrants finally shattered the economy of the GDR, discredited the communist regime beyond saving, and, in the end, made German unification the only alternative. At the end of November 1989, in a bold move, West German Chancellor Kohl announced a 10-point plan for German unification. It came as a complete surprise both to the Western Allies and the political opposition.

Suddenly, everyone in the GDR talked about unification. According to a survey by the Leipzig Central Institute for Youth Research, 52 percent of East Germans were against unification in November 1989; four months later, 88 percent favored it. German unity became the central question in the campaign for the first free election in East Germany, held on March 18th. The election was won by a conservative alliance under Lothar de Maizière.

De Maizière soon realized that his role in history was to be the executor of the dismantling of the German Democratic Republic. The GDR chose to join the FRG in accordance with Article 13 of the West German constitution, effective October 3, 1990. Under these terms, the former East German territory was reorganized into five new federal states *(Länder)*. As the former West German Chancellor Brandt said: "What belongs together is growing together."

The Demographic Future

Just as we often rewrite the past, we usually dramatize the future. Perhaps drama is appropriate considering the sometimes whimsical nature of human behavior. In contrast to the physical world, which is governed by natural laws, humans have the freedom to change their behavior. Both individuals and social groups can act in unpredictable ways. The unification of Germany is a case in point. No one could have foreseen how swiftly German unification would take place.

Because the future is unknown, our fears and hopes have always influenced our predictions. Demographers are not immune from exaggerating the implications of certain trends. During the early 1960s, German demographers predicted tremendous population growth, based on the "optimistic" (but incorrect) assumption that the baby boom signaled a reversal in the long-term fertility decline. Some 15 years later, when fertility had dropped to the world record low level of 1.27 children per women, conventional wisdom held that fertility would remain low. Scientific papers began to discuss the eradication of the German population because of the enormous birth deficit. Today, the wind is changing again. Some demographers point to the small increases in the total fertility rate during the past few years as indicative of a fundamental change in reproductive behavior.

Since the days of the German demographer and theologian Johann Gottlieb Süssmilch (1707–1767), demographers and social scientists have tried to understand what controls reproductive behavior. In Germany today, one popular approach to the study of why individuals do or do not have children (as well as when they have them) links these decisions to key events in the life cycle. Within the theoretical framework of this "biographical approach," the time spent in the educational system, the stage of a professional career, the kind of living arrangement, and the type of relationship individuals choose are recognized micro-level determinants of individuals' reproductive behavior.[23] They are influenced, in turn, by social, economic and political conditions. The concentration of births at the younger ages and the higher overall fertility in the former GDR provide clear evidence that decisions about childbearing are affected by policy measures and economic conditions. But despite these bits and pieces of evidence, we are far from developing a universally accepted theory of human reproduction.

Three Scenarios

In the face of these theoretical deficiencies, our study of future demographic trends in Germany should be based on scenarios of what could occur. We describe three sets of assumptions about the future trends of fertility, mortality, and migration among the combined populations of the former GDR and the FRG. Each set represents a possible path for demographic development; the reader may decide the likelihood of each scenario. Three scenarios, which encompass the range of likely behavior, are outlined below.

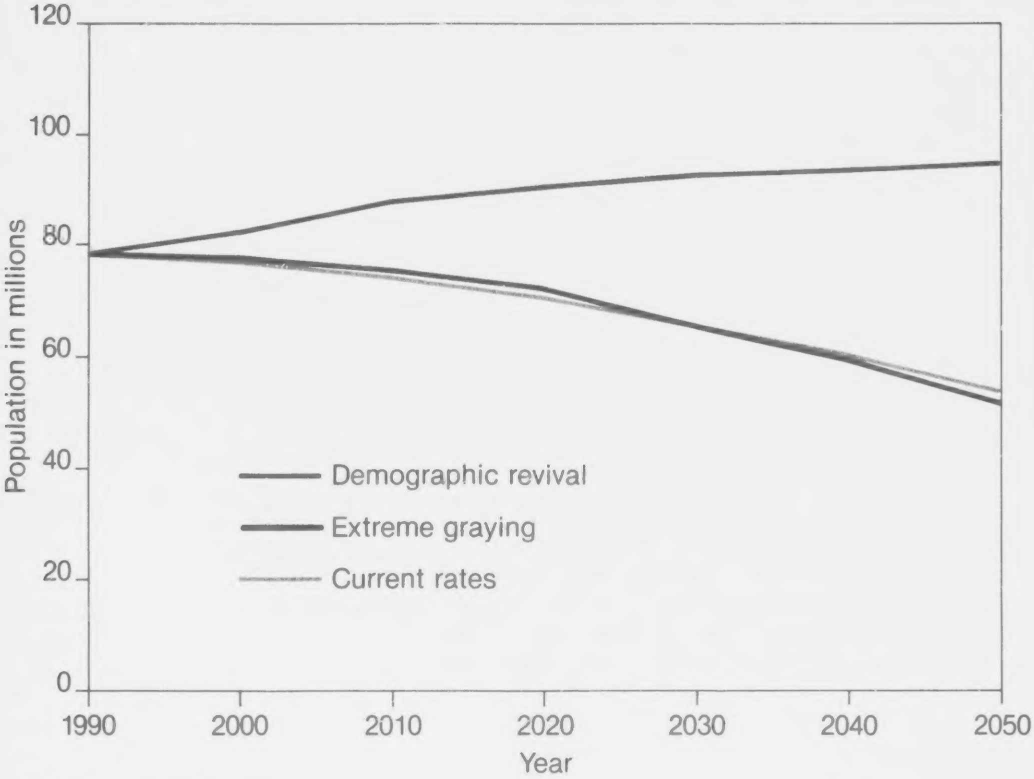
1. Continuation of Current Trends

The first scenario assumes that the current fertility and mortality rates in West Germany will apply to the unified Germany until 2050. It provides a base-line projection series, the "no change" hypothesis. It also assumes a constant net in-migration of 80,000 persons a year. Life expectancy is assumed to increase, following the trends of other western societies. To simplify the model, the possible long-term mortality effects of World Wars I and II have not been considered.[24]

2. Extreme Graying

Imagine a society of wealthy and healthy elderly that has totally closed its country

Figure 10. Population Projections under Three Scenarios, United Germany, 1990–2050



Source: Authors projections.

to in-migration. This hypothetical society would be characterized by extreme individualism, social egoism, and a preoccupation with health. Families with children would be rare. Single-person households would be widespread. Under this scenario, the TFR would drop continuously between 1990 and 2000, leveling off at 1.27; life expectancy would increase to 80 years for men and 85 years for women (between 1990 and 2005), and net in-migration would be zero. These assumptions are not far-fetched. West German fertility dropped to 1.27 in 1985, although it has since risen slightly. The assumed increase in life expectancy to 2005 is equal to the improvement experienced between 1975 and 1990. Only the assumption of zero in-migration has no recent historical precedent and is unlikely given the easing of border restrictions within the 12 European Community nations. But it is not impossible, if one imagines growing hostility toward foreigners in Germany.

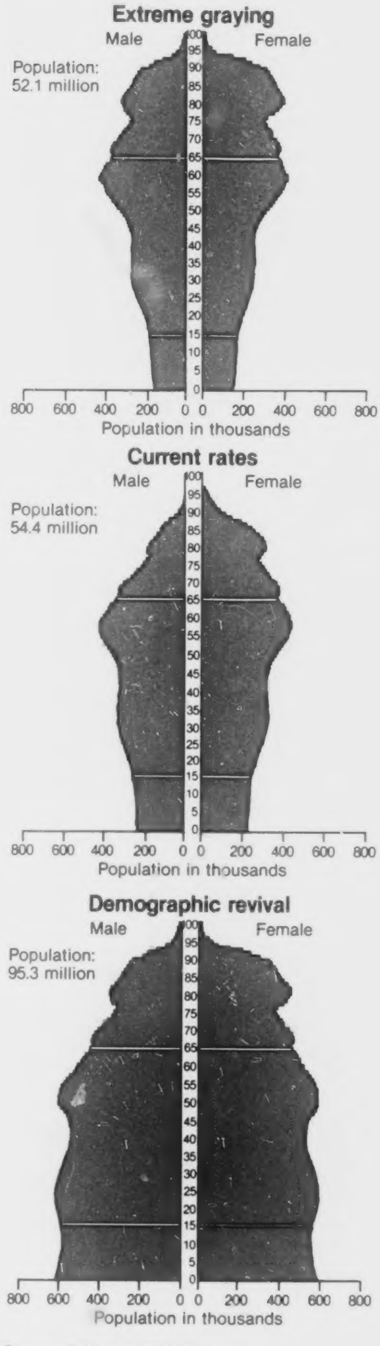
A standard cohort-component model was used to project the 1988 population of Germany (FRG plus GDR) at current rates to 1990. The assumptions of fertility, migration, and mortality of the above scenarios were then applied up to the year 2050.[25] West Germany's *age patterns* of fertility, mortality, and immigration were used. It was assumed that the rather different age pattern of East German fertility will adapt to the age pattern in West Germany. The *levels* of fertility, mortality and immigration were, of course, adjusted according to the various scenarios. Mortality rates were based on the 1985–1987 abbreviated life table of West Germany and weighted to comply with the life expectancy of the different scenarios. All input data were available for single years of age.

3. Demographic Revival

Suppose young Germans rediscover the value of children and all Germans adopt a tolerant attitude toward foreigners, adjusting to an influx of vast numbers of immigrants. This society not only would be more open, but would also radiate confidence about its future. In demographic terms fertility would increase to a replacement level TFR of 2.1 by the year 2000. Life expectancy would increase to 80 for men and 85 for women, as in the Graying scenario. Immigration would soar to 300,000 persons per year between 1990 and 2020 and then remain constant at 200,000 annually. This scenario appears unlikely but is not impossible. During the last few years, fertility in West Germany has increased. If this trend accelerates, Germany could reach the current fertility level of Sweden, which had a TFR of 2.1 in 1988. The heavy immigration flow could result from the new situation in eastern Europe and the Soviet Union, where millions of people are likely to leave their home countries to escape a worsening economic situation. A prosperous Germany will most likely be a major destination.

Future Population Size. In two of our three scenarios, the future population of the united Germany could well shrink below that of the Federal Republic of Germany *before* unification (see Figure 10). The first two scenarios yield a projected population of less than 60 million after the year 2040. According to our "Extreme Graying" scenario, Germany would contain a mere 52 million persons in 2050, less than the present population of France, Italy, or the United Kingdom. In neither the first nor second scenarios will Germany become a population giant. On the other hand, the "Demographic Revival" scenario projects a population size of 95 million in 2050. To achieve this growth, nothing less than a revolution in reproductive behavior would be necessary; and Germany would need massive immigration.

Figure 11. Projected Age and Sex Population Structure in 2050, Three Scenarios



Source: Author's projections.

There appears to be no escape from natural population decline in Germany. Even in the third scenario, which assumed enormous immigration, high fertility, and low mortality, deaths will begin to exceed births after the year 2030. The population will continue to grow only through immigration.

Births, Deaths and Natural Increase. There were some 900,000 births per year in the united Germany in the late 1980s. This number could drop as low as 305,000 by 2050, or rise as high as 1.2 million, according to the different scenarios. If fertility remains as low as it was in 1985 in West Germany, and if, at the same time, Germany closes its borders to immigrants, the birth of a child would be a rare event in the middle of the next century.

The annual number of deaths varies only slightly according to the three scenarios. The substantial increase in life expectancy assumed under the "Extreme Graying" scenario would reduce the number of deaths for the next two or three decades. But this would be temporary since only the timing of deaths is changed, not their total number. Only in the "Demographic Revival" scenario will the annual number of deaths be 300,000 higher than at present because the adult population would increase substantially by immigration.

Aging. Regardless of the scenario, the projections show a substantial aging of the population. In the "Demographic Revival" scenario, the proportion of elderly age 65 and above will increase from some 15 percent in 1990 to about 25 percent of the population in 2035; in the "Extreme Graying" scenario the elderly will make up more than a third of the German population (see Figure 11). Consequently, the proportion of working-age Germans (15 to 64) will shrink from 68 percent to some 60 percent in the Revival scenario and to 55 percent under the Graying scenario.

These projections also confirm what experts have been telling the German public for the last two decades: there is no way to stop the aging of the German population through a new baby boom. Even if we assume a sharp increase of fertility to an average of 2.1 children per woman (as in the "Demographic Revival" scenario) the proportion of children under age 15 in the population would increase only by 1 or 2 percent. Even in that case there would be more elderly over age 64 than children under age 15.

Hard Choices Ahead

The decade of the 1990s will pose difficult social, economic, and political problems for the newly united Germany. While internal demographic factors will shape the size and composition of the German population, external forces, such as ethnic and economic strife in the Soviet Union, Eastern Europe, and around the world, will shape the global context and concerns of German policy makers. Difficult choices lie ahead in addressing Germany's dilemmas of avoiding—or at least managing—a population decline, serving an increasingly older population, and balancing social and economic demands within a more multi-cultural Germany and an emerging European Community.

Prospects for Population Growth

Two key factors will determine Germany's demographic future: immigration and fertility. Both are politically sensitive subjects. Public opinion is sharply polarized on the question of immigration. During the past few decades the West German government has been officially a "non-immigration country," despite the fact that hundreds of thousands of foreign guestworkers and Germans from eastern Europe have settled in West Germany. We cannot predict the future, but it is possible that the united Germany will possess enough confidence and international openness to permit higher immigration. As a member of the European Community (EC), Germany already has relaxed immigration restrictions for people from other EC countries. But immigration alone, which is mainly from non-EC countries, could hardly counterbalance the large birth deficit of the Germans, as shown in the projections.

Immigrants enter a country imbued with their own marriage and fertility patterns. Massive immigration can affect overall fertility rates, particularly in local areas. Immigrants settling in Germany, however, have tended to adapt to the low German fertility level. A steady influx of large numbers of foreigners would be necessary to raise national fertility enough to stop population decline.

A growing number of immigrants could trigger old fears, perhaps racist incidents, which in turn could motivate politicians to restrict immigration again.

Besides immigration, only a substantial increase in fertility could stop the decline of the German population. But this, again, is a sensitive subject. There is fundamental disagreement among both demographers and politicians on how this could be achieved. The excessive and racist policies of the Nazis discredited explicit population policies in the minds of Germans. Accordingly politicians have shied away from any kind of explicitly formulated population policy. Unlike France, where pronatalism is an accepted policy option, most German politicians take a somewhat restrained approach, giving the issue a low priority.

The prospects of increasing fertility among Germans are dim in any case. The current TFR in West Germany is about 35 percent below the replacement level. Even with the addition of the East Germans with their higher birth rates, the TFR of the united Germany will be around 1.5, still well below replacement level of 2.1. There are widespread doubts that policy measures alone could raise fertility to the replacement level.

It is hard to imagine what policy measures could significantly change the reproductive behavior of Germans living in a liberal market economy. Some demographers have argued that the costs of children in Germany are too high. The taxation system, for instance, could be changed to favor families; more child-care centers and kindergartens for working mothers could be provided. Sweden has invested heavily in an improved support system for couples with children and Swedish fertility has gone up as a result. Swedes, however, have always been more family-oriented than central Europeans.

Some experts are skeptical that better services or financial incentives could motivate young Germans to have more children. The benefits, so they argue, might well trigger a short-term increase

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With individualism so highly valued, it's hard to imagine policies that would entice more Germans into parenthood.

of births, but would hardly increase fertility over the long term. The recent rise in Swedish fertility, for example, may prove to be temporary.

Many social scientists are convinced that the low German fertility is just one facet of a deep cultural change underway since the 1960s. The rejection of traditional sex roles in some segments of the population, the rise of a women's liberation movement, or the growing preference for remaining single are seen as symptoms of an emerging antinatalistic culture. Yet the percentage of women in the labor force is lower in western Germany than in most other northern European countries, an apparent anomaly.

There are other factors that help explain the low fertility. There are few other countries in the world where the young spend more years in the educational system than in Germany. Most university students are almost 30 before they start a professional career and settle down. Recently, the German demographer Karl Schwarz estimated that most children do not leave their parents' household before age 25.[26] Social scientists have used the phrase "delayed adulthood" to describe this unusual situation. This postponement of independence creates a time dilemma for many young German women: at the ages when they would otherwise be starting a family they are busy starting a career.

Economic factors are often seen as key determinants of Germany's demographic future. If one assumes that children are an investment in the future, Germans can hardly be called daring entrepreneurs. A large section of the adult population has refrained from parenthood altogether, and those who have invested in the next generation have only bought one or two shares.

Choosing to have children also means accepting added financial burdens that non-parents do not have to pay, putting parents at a relative disadvantage. The costs of children ~~are~~ largely borne by the parents, although the eventual economic benefits are enjoyed by the total society. Men and women who refrain from parenthood still expect the next generation to pay for their pensions and maintain a healthy infrastructure. The issues of burden-sharing between parents and non-parents are gaining importance in all low-fertility countries.

Though the economy is booming and the standard of living is rising, many young Germans worry about the future. They seem to be afraid of sharing their wealth with the next generation and with those who immigrate to the country.

Some have argued that worries about the future might be a key reason behind the very low fertility in Germany. It is more likely that both low fertility and pessimism about the future are caused by a specific German attitude toward life: a combination of ever-rising aspirations and decreasing willingness to make long-term commitments. In one of the world's wealthiest countries, couples complain that they cannot afford to have children. Fancy cars, big houses, holidays in distant countries, and a professional career have become more important to many Germans than children or a long-term partnership. The ambitious ideals of modern society—consumption, competition, and success—have often repressed the modest hopes for private happiness within a family or a marriage. If this is true, nothing less than a revolution in cultural attitudes would be necessary to change the low level of fertility in Germany and to stop its natural decrease.

Aging: A Looming Problem

A hundred years ago only some 32 percent of newborn boys survived to age 60. In the 1990s, more than 83 percent will celebrate their 60th birthday, and about one-third will live to age 80. Among baby girls, the proportion surviving to age 60 was 39 percent in 1881–1890 compared to 91 percent in the mid-1980s. More than half the female babies born today will reach age 80. In

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Menschen-
rechte
auch für die
Alten!

A member of Germany's growing elderly population demands: "Human rights for the elderly."

1881, a woman of 80 had another 4.2 years to live; in 1985, she could expect to live another 7.5 years.

This decline in mortality, combined with low fertility, has caused the elderly to increase more rapidly than any other population group, both in absolute and relative terms. Between 1871 and 1939 the number of Germans aged 65 or older increased from 1.9 to 6.3 million or from 4.6 to 7.9 percent of the population. After 1950, the graying of the German population accelerated. In 1946, 9 percent of the population was age 65 or older. By 1987, 15 percent was age 65 or over.

The increase in the "very old" is even more remarkable. During the 1870s, just 0.4 percent of the population in the German Reich was age 80 and above. Their proportion slowly increased to 0.8 percent in 1939. Since then, the full effects of the declines in fertility and mortality have become visible: between 1946 and 1987 the number of very old Germans in the two Germanies combined increased from 562,000 to 2.7 million, or from 0.9 to 3.4 percent of the population. In 1946, there were roughly 10 children under age 6 for each person age 80 and above. In 1987 the ratio was about two to one.

The changing balance between the young and the old has caused great concern among social scientists and politicians in Germany. The economic effects of population aging, especially the implications for financing the public pension system, have been a major focus of the discussion.[27] But there is also a growing awareness of health problems related to the graying of society. Because more Germans reach advanced ages, the prevalence of diseases associated with old age has exploded. Germans live much longer than in the past, yet often they cannot enjoy their old age in good health. In 1986, one-third of all men age 75 or more and 38 percent of all women age 75 or more in the FRG were ill or suffered from injuries caused by accidents.[28] Between 1970 and 1987, health-related expenditures in West Germany quadrupled, from 70.6 to 260.9 billion marks (DM), largely because of the changing age composition of the population.

Traditionally, when old people become unable to take care of themselves, daughters or other family members have provided the care. But many Germans who will be entering advanced ages early in the next century never had children. In fact, a disproportionate number of the baby-boom generation (born between the late 1950s and late 1960s) probably will never marry. They were the first generation to grow up with the extremely low marriage and fertility rates that Germany has experienced since the 1970s. These graying singles could suffer severe social as well as health problems because they lack a family support network to provide care and companionship. After 2030, the elderly will outnumber young adults, and elderly singles will become a large social group.[29] Care of the elderly probably will fall more and more on the government, boosting health and social service costs even further.

Box 4. World Champion Worriers

"Even on the brink of unity the Germans remain world champion worriers. From their moaning and snarling over details, you might be misled into thinking they would prefer to stay divided."[1]

When the Germans celebrated their unification on October 3, 1990, most observers were a little disappointed. They had expected a joyous demonstration of national pride. But the masses on the streets of Berlin and elsewhere in Germany were obviously more interested in enjoying the day with *Würstel and Bier* and popular music than by chanting political slogans.

A little story might reveal how German officials treated the historic event. On October 3, the "Permanent Mission of the Federal Republic of Germany to the International Organizations in Vienna" gave a reception to celebrate the unification. The Germans at our institute, the International Institute for Applied Systems Analysis, were invited also. Remembering the excellent buffets we had enjoyed at the German mission in the past, we expected something special. We were sorely disappointed. There was no speech and only a few refreshments for the 80-odd people who attended. Everyone understood the message: "Business as usual."

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October 3, 1990—Huge crowds celebrate German Unification Day in front of the Brandenberg Gate, Berlin.

The restrained, businesslike approach to unification reflects the worries of many West Germans that life might become more difficult in the united country. Three issues account for most of their uneasiness. First, the unification will almost certainly cost much more than expected. Second, the world might ask a sovereign Germany to show more responsibility for international affairs, including military participation. Until recently the West Germans could hide behind their constitution, which strictly forbade them any military action outside the NATO, but this is likely to change. Third, everyone expects that the united Germany will support the process of European integration most vigorously in order to prove its support to this cause. This means, however, that more money and a significant part of the new sovereignty have to be given to the European Community. And it also would mean that the Germans have to give up their strong mark for a new Euro-Currency.

Many Germans are aware that their wealth relies on an open and friendly world. The export-driven industry heavily depends on free trade, international peace and collaboration. But the united Germany will find it more difficult to avoid the traps of international affairs.

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Germany and Europe

Many Europeans, and quite a few Germans too, dread the new united Germany. Their anxiety is somewhat ironic. For decades the Western democracies backed West Germany's constitutional claim for "unification in freedom and liberty." When it became obvious that unification was about to come, however, many felt uneasy about the prospects. Even West Germans were caught short. They had enthusiastically applauded the democratic movement in the GDR, but when they suddenly realized that the East German slogans for unity were serious, many West Germans shied away from the consequences.

Many Germans are aware that their neighbors are uneasy about unification. It is, of course, not the *demographic* dominance that makes outsiders shiver, but the *economic power* of a united Germany. The West German government does everything possible to stress that unification will not weaken its enthusiasm for European integration. They seriously want to see Germany embedded in the emerging European Community.*

Integration into the European Community is not the only factor that will counterbalance Germany's economic dominance. The country has accepted responsibility for the hopelessly inefficient economy, tattered infrastructure, and dreadfully polluted environment of East Germany. This hardly strengthens the economic muscle of Germany. According to the most recent estimates of the Deutsche Bank, the former GDR will add just 14 percent to the GNP of the Federal Republic, while it probably will add 1.5 million unemployed. Germany will need an estimated DM 100 billion a year (US$ 61 billion) or more for the next few years to rebuild the ruined East German infrastructure. In addition, Germany has agreed to pay some DM 18 billion (US$ 11 billion) to the Soviet Union to underwrite the withdrawal of its troops from East German territory, and to reward Hungary for opening its border to East German tourists—an act that triggered unification. In any case, unification will pose tremendous economic and social problems for the Germans, destroying any delusions of grandeur.

The waves of immigration that led to the rejoining of East and West Germany are also likely to play an important role in Germany's future. In 1989, 845,000 persons immigrated to West Germany—a record high, and nearly 250,000 more than the number who entered the United States that same year. In relation to overall population size, immigration to West Germany was the highest in all of Europe and almost four times higher than immigration to the United States. The anticipated opening of borders of EC members in 1992, along with continued social and economic turmoil in the Soviet Union and Eastern Europe, is likely to add to these flows.

Germany is likely to become a multicultural society faced with the enormous task of providing housing, jobs, language training, and education to its new residents. While expectations of improved living standards run high among recent immigrants and many former East German citizens, recent economic forecasts project severe housing shortages and rising unemployment in the near term. Overcoming such problems is likely to test the vibrancy of the German state and ultimately will shape the future of a united Europe.

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*In 1985, the 10 nations of the European Community (Germany, Belgium, Denmark, France, Greece, the United Kingdom, Ireland, Italy, Luxemburg, and the Netherlands) agreed to support the "political and economic union" of Europe. To this end, they plan to create a common currency for all EC members (which now include Spain and Portugal) by the end of 1992. France and Germany also favor speeding up the political union of EC members. But the net result of these changes will be a loss of national sovereignty for all member countries.[30]

M. Herr

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Discussion Points

1. Describe the social, political, and economic events that have shaped Germany's age and sex distribution, as presented in the population pyramid on page 8. Explain the role each of these events has played in shaping fertility, mortality, or migration.

2. Explain, in detail, how Germany's demographic transition differed from that of other developed nations. What triggered the German transition?

3. Compare the post-World War II baby boom in both Germanies. How did the German baby boom compare to that of the United States?

4. How did government policies affect the timing of marriage and births in East Germany during the past two decades?

5. Consider how unification might change fertility and marriage patterns in Germany.

6. Explain the differences in life expectancy in East and West Germany prior to unification. Speculate on the prospects for change.

7. Compare the proportion of elderly in Germany to the United States, Japan, and Mexico. What special challenges does Germany face?

8. Describe the role that immigration and emigration have played in German history. How might this change in the future?

9. The authors present three scenarios for future demographic change in Germany. Which of the three do you think is likely? Defend your choice.

Prepared by Kimberly A. Crews

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